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MEDICAL RESPONSIBILITY REGARDING NATIONAL HEALTH.[1]

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PART I.

THERE are compliments and compliments. Some like the quality of mercy are twice blessed—they bless both him who gives and him who takes; some cause discomfort to the donor alone or to the receiver alone; some cause discomfort to both. To this last class belongs, I fear, the compliment your Branch has paid the National Health Commission in asking me for a paper. Had our Chairman been able to accede to your request when asked first, the matter would, of course, have been different. Neither you nor I would have suffered any pain; he might have experienced a little discomfort, but the pleasure that you and I would have received, would surely have been ample compensation to him for any such small personal discomfort. But when on his refusal the request was passed on to me, I speedily became so conscious of the discomfort we would all experience, that had I obeyed my own inclinations, I too should have declined the honour. I could not forget, however, that in my case the matter was different. I am under a personal obligation to your Branch, in that it was entirely due to your action in nominating me last year for membership of the Commission, that I first began to think of this as a possible duty—a duty which has proved a pleasure in the widened experience it has given and the number of new friends to whom it has introduced me. Further I am under many personal obligations to one of your members, especially for one great act of kindness last year to my wife; I regret he is not with us tonight, even though I rejoice with you that he is so worthily representing our Association overseas. These memories would have made it nothing less than churlish to refuse your request, whatever my own discomfort.

Members will readily understand, however, that under present circumstances it has been impossible for me to write a purely scientific paper, consequently I have been compelled to select a general subject which, however, from its importance at the present juncture is in my opinion worthy of the attention of us all. Members also will understand that while in this paper I am only expressing my

[1] Read at a meeting of the Queensland Branch of the British Medical Association on June 19, 1925.

own personal opinions, I am to a certain extent limited in discussion by my position on the Commission. Although we are at present only taking evidence and none of us know what our ultimate report will be, it is manifestly impossible for me to touch on details of schemes or organization on which the Commission may be making recommendations. Even on a general subject therefore my remarks may appear superficial.

I have said that at this particular juncture this subject is of importance to us. That is so because of the very appointment of such a Commission. Up to the present, whatever our individual responsibility in carrying out schemes for the improvement of national health, we have had no official responsibility as a profession for their enunciation and promulgation. On the other hand, from the very fact that they have generally been put forward by lay individuals, we have been able to indulge to the full that capacity for destructive criticism which is so well marked in us all. But whatever the ultimate findings of the present Commission as the result of the investigations which we are now pursuing, this can no longer be our attitude as a profession. In this Commission, for the first time, the personnel is almost wholly medical and for the first time the British Medical Association has been officially recognized and given representation. For the first time we are asked by those in authority for a constructive programme. Consequently the policy ultimately decided upon and enunciated will be looked upon as a policy approved by the medical profession. While we cannot expect agreement with it in every particular, yet lighthearted or captious criticism by members of our profession will inevitably lead to the rejoinder: "But have not three members of this Commission been members of the Federal Committee of your Branches and is not one of them appointed by your profession?" I need hardly assure members that the realization of this position has made us feel very deeply our own responsibility in the matter. While I have said that elsewhere my statements are only the expression of my own personal opinion, I know that in this matter I speak on behalf of my fellow-members as well.

Yet it will readily be seen that while the first responsibility for the report will be ours, there follows none the less a serious responsibility on the profession as a whole. And I use this expression advisedly to cover both administrative and practising members of our profession, because one of the points I wish to emphasize is that in this particular matter we are all concerned.

This responsibility consists, first of all, in the members of the profession endeavouring to ascertain our reasons for any recommendations from which they may differ, and in refraining from dismissing the whole question by reference to particular local or temporary conditions. To maintain this attitude is, I know, not easy; for the medical man is by nature of his training and his work largely individualistic in his outlook. He becomes so used to idiosyncrasies in his patients, to those adaptations which he has to make in practice owing to local conditions, he is so accustomed to working alone, he is so accustomed to speak with authority to his patient, that unconsciously he tends to carry this attitude into all his thinking. A successful salesman of surgical instruments confided to me not long ago that the secret of his success lay in the fact that he recognized early in his career that every medical practitioner was a faddist. It was no good trying to prove to him the merits of a particular instrument that differed in some slight detail from what he preferred. It was that little detail that he loved, and the salesman had to adapt himself to those views, based as they were on some individual experience. In twelve months' time his views would probably have changed in the light of other experiences, but for the time being you could sell him only the thing on which his heart was bent. I think we all know from our personal experience how true this is. But this very individualism creates a difficulty when we come to discuss a constructive policy of national health formulated by someone else. That it can be overcome is shown by the success of medical men as units in a big administrative system like the Army Medical Corps in the recent war. It is our responsibility to carry that same spirit into our organization in civil life for the war against disease.

Consideration of these factors in the situation leads us up to the three main points for which as a profession we are responsible. In the first place as a specially educated and trained body of men and women we are from time to time responsible through our leaders or those appointed to the duty for formulating a policy for the promotion of national health. In doing this, it is our duty to lay down what we consider to be the ideal principles on which such a policy should be based. When and to what extent that policy is brought into operation depends on others than ourselves. This straight way involves us in a second responsibility—that of educating, in the meanwhile, both politicians and the general public in the reasons for these principles and the necessity for their being adopted in our national life. Agreement in details cannot be expected, but on main principles we should speak with no uncertain or divided voice.

Thirdly, it then becomes our responsibility to carry out this policy when and in what measure it may be adopted.

This last essential is naturally impossible unless it is preceded by the other two. For just because any satisfactory administrative scheme for national health can only be carried out by the medical profession, it follows that it will not be proposed unless it is probable that they approve of it. If proposed by lay authorities, they can only anticipate this approval because they have previously learned such policy from the medical profession; if proposed by medical leaders or administrators, it follows that they have first discussed it with their colleagues and know their views.

The trouble is that, when it has been then adopted as a policy and put into action by politicians, the lay administrative mind gradually comes to look on that policy as inevitably fixed for all time. By the time he has got used to its workings, he is satisfied to keep on. Ordinarily he has no means of properly estimating its effects on health; his main concern is with the smooth working of the machine and he resents suggestions for its alterations just as formerly he opposed its introduction.

But the science of preventive medicine is progressive. We learn only by experiments. Our ultimate aim must always be to get back to basic principles and apply them to the problems of a particular environment. Applying a supposed principle we learn its imperfections and progress to further experiment:

> The world advances and in time outgrows
> The laws that in our fathers' times were best;
> And doubtless after us some purer scheme
> Will be shaped out by wiser men than we—
> Made wiser by the steady growth of truth.

For instance if there was one principle that was formerly instilled into me, it was that the installation of a water carriage system for the disposal of human excreta was always followed by a fall in typhoid morbidity and that the lessened incidence of this disease in recent years was due to the extension of the water carriage system. But a year ago I was startled to read a paper by Dr. Harold Kerr, Medical Officer of Health, of Newcastle-on-Tyne, in which he tabulated the results of his investigations into the prevalence during recent years of typhoid fever in various large cities in England, and showed that while formerly the introduction of water carriage systems apparently caused a fall in typhoid morbidity—in recent years this was not so. The fall had not been progressive, in certain places the extension of the water sewerage system had even been followed by a slight increase. The question at once arises: Was the former fall simply a coincidence or does it mean that the introduction of water carriage of sewerage was simply one of several factors which came into operation about the same time?

A propos of this question I have learned since touring with this Commission that Bendigo has recently installed deep drainage and that there is a much smaller incidence of typhoid there than there was some years ago. But further inquiry shows that not enough of the city has been sewered to lead to any marked difference and that the actual fall occurred a year or two prior to the new system being installed. (I believe that much the same is true of your own city of Brisbane.)

Similarly in Port Pirie the typhoid rate was excessive a few years ago. This year we had evidence that the rate has fallen greatly in the last few years and it was shown that this is probably due to a reorganization, with consequent greater effectiveness, of the pan method of disposal which was already in vogue. A deep drainage system has been proposed for that town and may be executed in the next few years. A writer a few years hence, casually examining statistics and dates, could quite easily ascribe the fall in both these places to the introduction of sewerage, but it is quite evident that there are other factors at work as well.

Similarly in our teaching we have so commonly associated overcrowding and morbidity, that many of our profession talk today as if the removal of overcrowding was the panacea for removal of disease. Some administrators even talk of tuberculosis as a house deficiency disease just as scurvy is a food deficiency disease. I have for years taught students that it is very difficult to say whether the deficiency in food which is the result of the same poverty that brought the individual to such quarters, is not a more potent factor than the actual overcrowding, and that the chief effect of the overcrowding itself is probably the resultant increased liability to infection, especially in tuberculosis. But on this journey to Brisbane I have read a paper by Professor Wynne in which he shows by rather elaborate diagrams, that his investigations force us to the conclusion that whatever was the case forty years ago, today "overcrowding *per se* is a less potent influence in promoting the spread of infectious disease than it was in the days of our forefathers." Overcrowding exists in England now, he says, to an extent unequalled since the "forties" of last century; the percentage of population living more than two in a room is 12% in 1921, as against 8.4% in 1911, yet the death rate from pneumonia, tuberculosis, measles and scarlet fever are all reduced by about 50% during the same period.

In our own country we are faced with the similar fact that overcrowding recently has been more marked than ever before. A Sydney paper last week speaks of eight people living in two small rooms and a kitchen; six in two rooms, twelve in four rooms and so on. Yet the increase as regards overcrowding seems to have had no ill-effect on our national morbidity. On the other hand there is a good deal of evidence that in the back country districts where there is no overcrowding but where children work for long hours in the dairying industry before and after school with irregular or insufficient meals, their vitality is thus depressed and the general standard of health lowered.

Professor Wynne's suggestion is that there are other factors present to explain his figures, one of which is the varying virulence of organisms at different periods. In our own time we have had evidence of this in the pandemic of influenza in 1918-1919 and also in the way that the incidence of diphtheria increased from about 1912 to 1921 throughout Australia; since then it has shown a slight decrease. If this decrease continues it will be quite possible that some future writer will ascribe it all to the spread of the Schick test and active immunization with toxin-antitoxin injections, yet the facts show that in Australia at any rate the decline started before these were at all widely used. It is interesting to note also that in most

country districts in which a laboratory has been established, the notified cases of diphtheria fall almost immediately, owing to reliable bacteriological methods being at the disposal of practitioners.

Now I can hear someone interjecting: "But we know that a water carriage system lessens the influence of typhoid; we know that overcrowding increases disease and that the introduction of the Schick test is a scientific advance in the prevention of diphtheria." No one denies it. The point is that neither of them is the whole story of prevention in the particular problem to which they are applicable. The facts have been cited to illustrate that part of our responsibility is the open mind, ready at any time to reinvestigate conditions, regarding no question as definitely settled for all time, but ready at any time to reexamine it in the light of further experience, regarding no one method as ideal, but ever seeking for fresh methods of attack on disease. And this responsibility is ours because of our training, because it should have made us able to appreciate the bearing of new discoveries on our old methods and should keep us from getting into the rut of contentment with present methods, which is the weakness of lay inspectors and administrators.

A little reflection on our experience in other branches of our profession will convince us of how easy it is for us to fall into this danger of seeing what we are looking for, or of pinning our faith to any one method. The story of the fight for asepsis in surgery illustrates the latter; the historical instances of the mutually exclusive upholders of antisepsis or asepsis, where the war taught us there is a place for both; the memory of particular rituals, of toilets of the peritoneum, changing in as rapid succession as present day methods of hairdressing, but always for the time "the method"; of many other fetishes out of which we have advanced into a scientific treatment of surgical problems which vary in different conditions. The former danger is illustrated by our numerous fads in medicine or surgery; by the way one man sees vitamin problems in every case, another sees endocrine problems; another removes the appendix for every right-sided pain. One resident told me not long ago that in three months he had seen nine patients with pyelitis admitted to a women's surgical ward for immediate appendicectomy. Years ago, before laboratory facilities were available, every patient with *tabes dorsalis* one saw from Broken Hill had been looked upon as suffering from lead paralysis and every patient with malignant endocarditis had been regarded as suffering from typhoid fever. In preventive medicine we have to preserve the open mind just as in our medicine and surgery.

The story of infantile mortality well illustrates this ever changing responsibility. Twenty years ago many of us spoke as if proper infant feeding would solve this problem entirely. Some have pushed this even further and have so extolled one particular method of infant feeding in all its details, that nurses trained in this atmosphere become, as one witness happily put it, "like devotees of a religious cult." But reexamination of the whole question in recent years has brought to light that this mode of attack only affected postnatal mortality and left untouched that neonatal mortality which we had not sufficiently differentiated before. Awaking to this fresh responsibility, the profession of recent years has, with increasing insistence, advocated and itself practised prenatal care of expectant mothers and has demanded better obstetric teaching for its coming members and their nursing helpers in midwifery practice. Faced with the fact revealed by maternity allowance statistics, that in fourteen years the number of parturient women attended by medical men has increased from 61% to 79% with no corresponding decrease in mortality, the profession is now facing this new responsibility thus thrown on members already practising and the Permanent Committee for Post-Graduate Work of Victoria has given us a fine lead in instituting during this winter a post-graduate course of twelve lectures and demonstrations on prenatal and natal problems.

Here we have the whole process well illustrated—reinvestigation of a question to discover the reason for a partial failure, the adoption of a new idea of attack, the education of the public and politicians to its necessity and the attempt to take our part in properly carrying it out. Here we have also the difference from that purely negative policy which characterized our original opposition to the institution of the maternity allowance. Yet by our very advocacy of this constructive policy we have committed ourselves to a fresh responsibility. It rests on us now to carry out that policy. And that responsibility rests not on leaders, but on every individual member practising obstetrics, by whose loyalty the credit of the profession rises or falls.

Yet it may happen in the future that we must again reinvestigate the same question. For so far, in considering fœtal deaths from accidents in delivery through disproportion between fœtal head and pelvic measurements, we have thought only of deficient pelvic measurements in relation to the usually quoted standard for a normal head. Yet one Australian investigation made a few years ago showed quite a definite increase in the average size of newly-born Australian children which, if confirmed, would bring us up against an entirely new question. In such an investigation every practitioner's figures would be of value.

On the other hand this history of infantile mortality gives us one of the best proofs of the influence the medical profession can exert, once they have grasped a basic principle and continued to advocate it. When I started practice there was quite a popular fad for the early weaning of babies. In many quarters it was looked upon as distinctly "low" for a mother to suckle her infant. All sorts of patent infant foods were rushed on the market with such success that infantile scurvy became fairly common. Through those years the profession in and out of season insisted that the natural method was for the mother to feed her child, with the result that by 1910 the majority of women were

anxious to nurse their own children and Dr. Borthwick in an investigation in Adelaide reported that 90% of babies were breast fed for some months. And in the growing public interest in prenatal clinics we see the rapid influence united medical opinion can exert.

Yet the march of time has brought on us a fresh responsibility. The same type of mother who thirty years ago thought it "low" to suckle her child, today refuses to bear the child who will need nursing. Young couples frankly discuss before marriage the question of contraception and a judge, according to last week's cables, sympathizing with a mother of seven young children who was in arrears in her rent, said: "I am sorry you were not taught not to have children; it is ruining you and ruining the country; even bishops are now agreeing it is unwise."

What is to be the position of the profession in this matter? Some advocate strongly a medical policy in favour of it. On the other hand in conversations during the past few months I find from many experienced men whose experience has been the same as mine, that neither in their own family or in any patient's experience have they ever known a baby come at a "convenient" time. They are convinced that many cases of neurasthenia and psychoses which they see in women, have this practice at the back of their causation. Without entering into further discussion, it seems to me that on the profession at present lies that first responsibility of properly investigating the whole matter, in an attempt to find the basic principle which it should uphold in regard to this branch of national health.

In regard to the prevention of the spread of venereal disease we have gone through just the same succession of changing responsibility. The investigation into these diseases that was begun in Melbourne in 1908, followed by the full discussion at Sydney in 1911 and Auckland in 1914, led to the formulation of a definite policy of attack as a purely medical problem. There is no doubt that here again we have an illustration of what can be done by rightly facing up to our responsibilities. For the subsequent increase in popular intelligent attention to the subject undoubtedly followed directly from that time with consequent State legislation and Commonwealth financial assistance.

But recent events suggest very strongly that the time has come for a reinvestigation of the whole question and that especially on three points: (i.) Whether the profession, both administrative and practising, is facing its responsibilities under the third head of which I have spoken, that of thoroughly carrying out administrative duties. (ii.) Whether the profession is carrying out that principle which was laid down in the proposal of all recommendations, namely, that the educational propaganda should place continence in the foreground and that both sexes must be viewed and treated alike. Much of the evidence suggests that we have got back to preferential treatment of the male and much of the educational propaganda would seem to be rather unconsciously to encourage incontinence through the promise of freedom from infection for the male—a very grave responsibility to take in civil life. (iii.) Whether we can maintain our insistence on a purely medical standpoint any more than we can in tuberculosis.

A comparison of our attitude towards the two chronic infections, tuberculosis and venereal infection, is very interesting, for one seems inextricably mixed up with economic problems, the other with social problems; the one depending ultimately on perversion of the primary food instinct which makes for self-preservation, and the other on perversion of the primary sex instinct which makes for the preservation of the race. But that in itself is the subject of a paper.

In other fields we have responsibility thrust upon us through movements outside our control. In 1912 for instance, the Federal Committee went very thoroughly into the whole question of national insurance and concluded that it was unnecessary. The appointment of a recent Royal Commission on National Insurance has, however, completely altered the situation.

Faced with a fresh responsibility thus thrust on it from outside, the profession reinvestigated the matter in an attempt to find a constructive scheme to meet the new situation and adopted through the Federal Committee an outline of a scheme which includes *inter alia* "institutional treatment (medical, surgical, mental, tuberculosis, malignant diseases, venereal diseases *et cetera*) provided always that facilities are maintained for medical education and research." Now I do not know whether members realize what was made quite apparent in the discussion on the subject in the South Australian Branch, that this may involve a revolution in our whole hospital policy. The National Insurance Commission shelved the hospital question and it is not a subject for our present Commission, except as regards infectious diseases. But the complexity of the hospital position in Australia both as regards administration and medical supervision and medical attendance passes belief. I think I am correct in saying that there has never been a declaration of medical policy in relation to hospitals, except an old resolution of some congress that medical men should not own private hospitals, of which no one has ever taken the slightest notice, and some other resolution reaffirming the principle of honorary attendance, passed when hospitals were practically confined to large towns. In the meantime hospitals have extended to country districts, diverse systems of control have developed in different States. Hospitals are attended in some places by one paid man, in others by honoraries, in others by honoraries with payment for medical officers at night clinics, in repatriation hospitals by paid visiting staff, in many country hospitals by all practitioners in a town and in numerous other ways. Is there not a responsibility resting on us to have some subcommittee appointed to investigate the whole position and discuss and frame a policy?

Consideration of all these points makes it all the more regrettable that at the present juncture we have no organization which enables us to get together and discuss these problems from time to time. The Federal Committee is our present instrument for enunciating medical policy affecting more than one Branch. And for that reason I urge upon your Branch never to let a session of the Federal Committee go by without seeing that some such national health question is brought before it. For it is our responsibility to see that its time is not taken up merely with the discussion of parochial matters affecting only the interests of the profession. The fact of any of these matters being brought before a meeting of the Federal Committee involves their being subsequently discussed by meetings of the different Branches. Nevertheless these discussions at Branches do not completely serve the purpose; for speakers are of necessity local in their views and swayed by local prejudices or interests or by special conditions. And unfortunately also of recent years there has crept in the custom of Branches instructing their representative on Federal Committee how to vote on particular questions. This defeats the whole purpose. For however a member may be swayed by a new point of view which he hears put forward by a representative of another Branch, he feels bound to obey his instructions when it comes to a vote.

For this reason it is all the more regrettable that force of circumstances should compel the next inter-State medical congress to be postponed till 1927 in New Zealand. While it was decided, and I think rightly decided, when the change to a British Medical Association congress was made, that the passage of resolutions by congress should be abolished, there is no doubt as to the value of the discussions that take place at these congresses between men of different States. Intended originally to prevent catch votes on medico-political subjects, this decision against resolutions has had the unexpected result of preventing any scientific combined discussion of these national health problems which are more and more crowding upon us. There is no doubt as to the value of the discussions on syphilis in 1911, on diphtheria and tuberculosis in 1923; and I am sure it was never contemplated that between 1921 and 1929 we should only have one opportunity for such discussions in Australia. Here again we have learned by experience and it is our present responsibility, I think, to modify our procedure so as to meet the new situation created.

Part II.

After thus wandering for so long in an atmosphere of Cimmerian gloom, following from time to time the light of a will of the wisp which only plunges us again into a fresh bog of uncertainty, I am sure it will be a relief to you all to regain the clear atmosphere and dry land of dogmatism. Wherefore let us firmly and unhesitatingly affirm certain propositions:

1. That the standard of national health is not what it ought to be. This might be stated as an axiom, requiring no proof, were it not for the fact that some individuals may straightway start an argument, simply because they regard such a statement as an attack on our health departments. To clear matters, therefore, let us go straight on to our second affirmation.

2. That one reason for such a state of affairs is that neither in Commonwealth nor in any State is the Health Department put in control of all health activities. Only one State Health Department for instance has any voice in the control of maternal or of infantile mortality or of industrial hygiene. The activities of all of them are confined almost entirely to the sanitation of water and food and to a more or less antiquated system of control of certain diseases which are legally "infectious." Many of our medical administrators recognize this and chafe under it, but see no way of present improvement. And I submit that it is one responsibility resting on us as a profession to see that these disabilities on professional colleagues are removed.

Even in the control of communicable and preventible diseases the present powers of the medical administrators are very limited. For one thing, only a few of these diseases are notifiable and therefore within their sphere of influence. I have not first-hand experience or other qualifications necessary to enable me to speak to you of your own special problems of this kind. I realize more and more that as one gets north of Grafton, one enters a region where conditions are in many ways different from those in the south, where occasional epidemics of dengue occur, where filariasis, malaria and other insect borne diseases are more or less endemic, where hookworm, unknown in the south, is constantly present. All this merely means that any system of national health control for Australia must be exceedingly elastic, capable of adaptation to particular local needs.

But if we confine ourselves to those communicable diseases common to all parts of Australia, we find that only in one State are measles and whooping cough, the two most common causes of death in children under five, even notifiable. And even in that State practically no administrative action follows. Although we boast of the reduction of typhoid, our Chairman in his presidential address in 1923 showed how far we still were from the standard of the army in the Great War. We have seen that diphtheria has risen and fallen in the last twelve years, independent of any influence exerted by us. Without going into details of other diseases, I select scarlet fever to show you the curve for the past years, first because it is comparatively infrequent in your State and therefore the facts concerning it may have escaped your notice; next because it has for years been notifiable in every State, because it is abrupt in onset, diagnosed early and non-infectious until the patient goes to bed, confers almost complete immunity and because natural immunity seems to be generally acquired by adult life; all of which factors at first sight should make it easier of control. Yet the chart shows otherwise (see Chart I.). Whatever the cause

it is quite evident that this like other communicable diseases runs its course, unhindered by our present forms of health administration.

The vast area of national health completely untouched by health departmental activities can be gauged in another way, when one reflects that apparently it has not yet dawned on any of our administrators, or even perhaps on the bulk of our practising profession, that among the preventible diseases are such as nephritis, whether caused by throat infection or lead, organic valvular disease of the heart, whether caused by rheumatic fever or syphilis, pneumonia, whether secondary to other infections or not, and a vast number of other diseases. Yet the fact of their preventibility is generally recognized now both in America and England. I will not labour this point, but only mention that the four great national causes of death are organic heart disease, pulmonary tuberculosis, pneumonia and cancer and that with present arrangements our health departments can only be concerned with heart disease in so far as it is caused by syphilis and with pulmonary tuberculosis. And as regards the latter there is not a single State that has a planned scheme for the reduction of tuberculosis.

I need only mention England and the tremendous improvement in national health since 1919, when all the health activities were included under a Ministry of Health with a Medical Director and adequate staff. In 1918 the death rate of England was 14.4 and that of Australia was 10.1; in 1923 that of England was 11.7 and that of Australia 9.9. In 1918 the infantile mortality rate of England was 91, that of Australia was 59; in 1923 that of England was 69, that of Australia was 61. Up to 1918 the infantile mortality rate of London had never been below 110, which was its figure that year and the year preceding; that of Brisbane in 1918 was 63. In 1923 that of England was reduced to 60, while that of Brisbane was still 58 and that of every other capital city in Australia was above that of London.

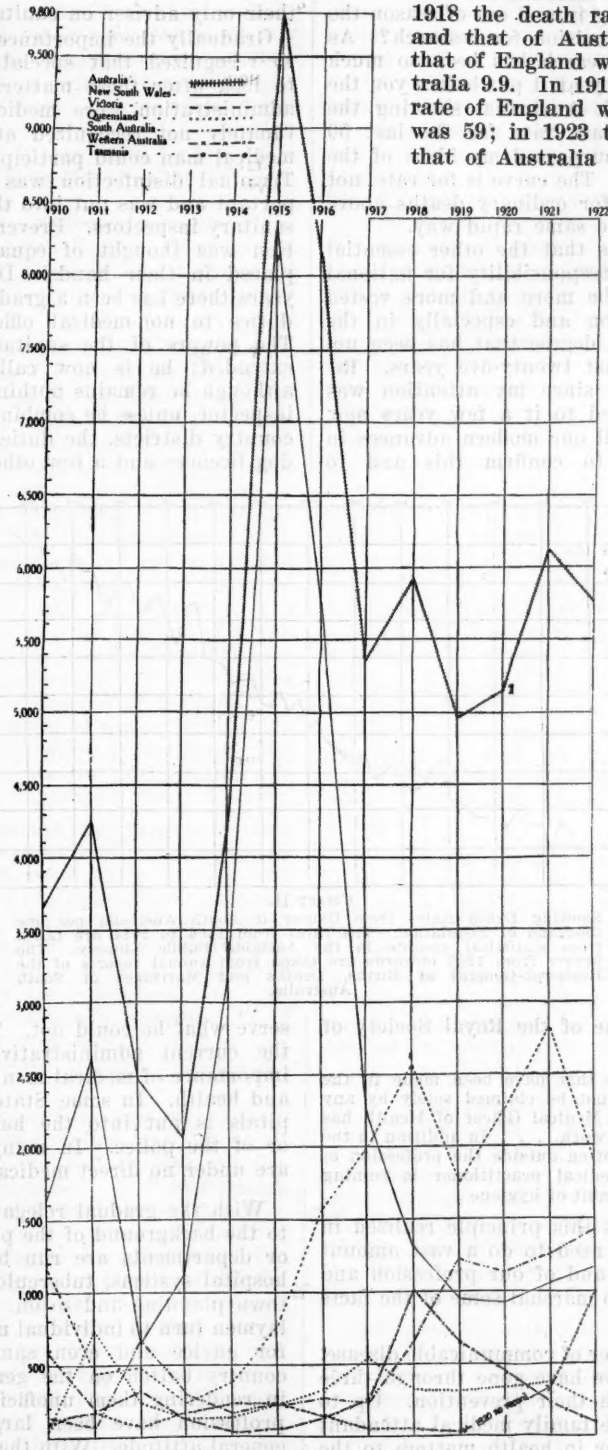

CHART I.

Showing the Incidence of Scarlet Fever in Australia from 1910 to 1922. (Taken from *Health*, June, 1923).

One has only, I think, to consider such great differences, in order to realize that so relatively an unsatisfactory rate of progress in national health in Australia is bound to continue, until all services in connexion with the prevention of disease are brought directly under the Health Departments with medical leadership. This does not involve the abolition of voluntary Associations, but it does involve their medical supervision and co-ordination, a step that has been found most necessary in America.

Before I leave this matter my mention of scarlet fever and also of the Ministry of Health raises another question. Why is it that scarlet fever becomes less prevalent as we come north, until it is practically unknown in New Guinea and similar regions? Why again does tuberculosis become less prevalent as we come north? I do not know, nor can I find anyone else who does know. But when we think of all the other similar questions

that one can put, does it not impose on us the responsibility of preaching in and out of season the necessity for national provision for research? As the subject of cancer research has been so much before the public the last year, I put before you the striking curve for South Australia, showing the extraordinary rise in death rate for the last 50 years which, I confess, surpassed my ideas of the increase (see Chart II.). The curve is for rate, not actual deaths; the rate for ordinary deaths above forty does not rise in the same rapid way.

My third affirmation is that the other essential for progress is that the responsibility for national health ultimately must be more and more vested in the medical profession and especially in the general practitioner to a degree that has been undreamt of during the past twenty-five years. Reflection on this subject, since my attention was more particularly directed to it a few years ago, has convinced me that all our modern advances in medical knowledge go to confirm this and to establish it as a principle on which we as a profession should base all our demands for reform in the national health services.

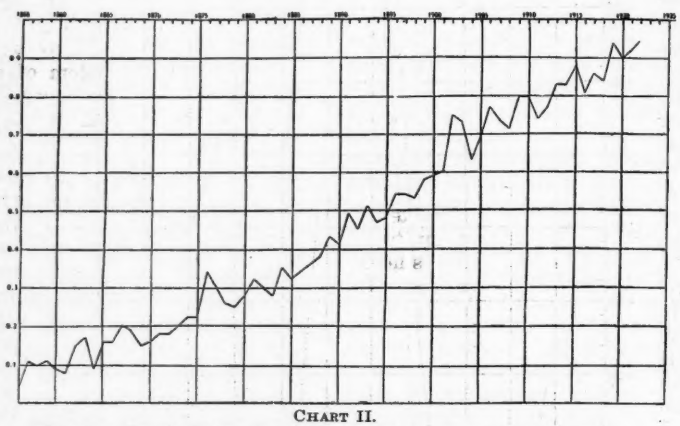

CHART II.

Showing Death Rates from Cancer in South Australia per one thousand of Population. The rates from 1856 to 1884 are taken from statistical records in the Adelaide Public Library. The figures from 1885 onwards are taken from annual reports of the Registrar-General of Births, Deaths and Marriages of South Australia.

This principle also is being recognized elsewhere. At the Annual Meeting of the British Medical Association in 1924 at Bradford a discussion took place on the rôle of the general practitioner on preventive medicine. In Dr. McVail's presidential address last year before the Section of Epidemiology and State Medicine of the Royal Society of Medicine, he says:

> Credit for the advances that have been made in the prevention of disease cannot be claimed solely by any single agency. . . . The Medical Officer of Health has played a large part in the work. . . . In addition to the research worker, who is often outside the profession of medicine, the general medical practitioner is coming more and more into the ambit of hygiene.

But before we can get this principle realized in administration we shall need to do a vast amount of education of officials and of our profession and therefore it seems well to marshal some of the facts that bear it out.

Consider first the matter of communicable disease. In my own experience we have gone through three stages of development in their prevention. Up to the time I graduated the family medical attendant was the unofficial adviser in health matters to the families of his patients. In particular he advised them, when infectious diseases occurred, as to isolation of patients, disinfection and so on. He was their only adviser on sanitary matters.

Gradually the importance of these duties became so recognized that special officials were deputed to look after these matters. While the heads of administration were medical men, it was unfortunately not recognized at that time that every medical man could participate in any such scheme. Terminal disinfection was thought to be all important and was put into the hands of non-medical sanitary inspectors. Prevention of food contamination was thought of equal importance and also placed in their hands. During the past twenty years there has been a gradual delegation of health duties to non-medical officers and organizations. The powers of the sanitary inspector have been extended; he is now called a health inspector, although he remains nothing more than a sanitary inspector, unless he combines with it as he does in country districts, the duties of inspector of traffic, dog licences and a few other things. Many health inspectors talk of a system of administration, when only the head official is a medical man; for the rest the country is traversed by an army of inspectors.

In one State recently when a country medical officer of health exhausted his energies in trying to trace the source of a series of cases of typhoid that occurred in his district, the central department actually sent up a nurse inspector to make an inquiry, as if she could observe what he could not. This sort of thing shows the current administrative idea as to the non-importance of medical men in matters of sanitation and health. In some States the inspection of hospitals is put into the hands of these inspectors or of the police. In many cases these inspectors are under no direct medical control or supervision.

With the gradual relegation of the medical man to the background of the picture new organizations or departments are run by laymen—baby clinics, hospital systems, tuberculosis clinics, playgrounds, town planning and so on. At the same time these laymen turn to individual members of the profession for advice and even sanitary inspectors in the country batten on the generosity of practitioners in rendering them unofficial assistance. We as a profession have been largely to blame for this general attitude. With that individualistic attitude of which I spoke, individual members interested in a particular problem have rushed into it instead

of getting the profession to take it up. Our British Medical Association Branches when not holding their scientific meetings, have been too much engrossed with matters of organization or medico-political matters. Even in scientific meetings we have turned up in numbers to a paper on a surgcial question, when discussion on a health question leaves us cold, because it has been looked upon more as a medico-political matter than one common to us all.

But let us look at the modern developments in medicine which are ushering in that third period when the medical practitioner will be restored to his rightful position in the organized fight against disease.

Consider once more the matter of communicable disease. The great excuse for sole reliance on sanitation a generation ago was the phenomenal success attained in stamping out typhus fever last century. But modern discovery has shown us that the influence of improved sanitation in bringing this about was really only indirect, just as it was in bubonic plague. In the 1900 epidemic of bubonic plague we attacked rubbish and insanitary conditions on the wharves as in some way connected with the causation of the disease. In 1921 we attacked the rat direct and the epidemic was stamped out in eighteen months instead of seven years. And typhus fever has joined bubonic plague, malaria, yellow fever, hookworm and those other diseases dependent for their spread on inanimate or insect vectors. In the control of these the sanitary inspector under medical direction must always hold his place. The mistake was in not limiting his activities largely to the control of these diseases.

The second great triumph for sanitation was typhoid fever. But a previous quotation has shown that sanitation does not adequately control, the human typhoid carrier is the crux of the problem. And the detection of the carrier brings the medical man into the picture again and the active immunization of those exposed to infection keeps him there. Yet so little have we progressed that only in one State is there compulsory examination of convalescents for carriership and in only a few hospitals outside this State is such examination regularly carried out.

But mention of vaccinations against typhoid should remind us that the greatest triumph of all modern prevention was the victory last century over small pox by vaccination. And vaccination always means control by a medical practitioner. After a hundred years we see the almost sudden extension of this principle to other diseases. The future control of diphtheria seems to be in the more general application of the Schick test and active immunization. Some contend that this is impossible for the general practitioner to carry out. I confess that such talk always appears to me to be libellous. The keen country practitioner is one of the most adaptable men on this earth. In an emergency he will do anything from mending his motor car to the most urgent and difficult operation. To say that with a little post-graduate training the Schick test is beyond his powers is laughable. To say that it is outside the experience of young graduates is untrue. Further it has been shown that parents are far more likely to allow their children to undergo such treatment at the hands of their family attendant than at the hands of a stranger set aside for the purpose. Dr. Sprott, Medical Officer of Health for Hobart, has demonstrated that this can be done by arranging with all the practitioners of his district that the local authority will examine free any swabs they send in from contacts, provide antitoxin free for inoculation of contacts and pay the practitioner two shillings and sixpence for each such inoculation. As he is visiting his patients at the time, this fee pays him, does not cost the health department much, economizes time and brings the practitioner and official into direct personal relationship.

In scarlet fever the most hopeful sign for future prevention is the Dick test and active immunization as in diphtheria. In whooping cough we already have numbers of medical men vaccinating and immunizing all contacts and delighted with their results. In measles many writers openly despair of control until a system of vaccinating like that for small pox is introduced. In common colds I have an increasing number of people every winter coming and demanding vaccination because of the experience of others.

Turning to the chronic infections we find that in tuberculosis more and more insistence is being laid on early diagnosis, which means the general practitioner, and on tuberculosis dispensaries, which means the medical officer and to proper supervision after release from sanatoria, which means either.

In venereal disease the striking thing that has come out recently, is the diminution in syphilis, not due to legislation, but to the discovery of a rapid method of bringing about non-infectivity. One witness told us that an advanced student had never seen a secondary rash in syphilis. And most men despair of control of gonorrhœa till a similar method is discovered for that disease. This means control by medical men.

If, therefore, we are to hope for the control of these communicable diseases and of all their sequelæ, the quicker we get the general practitioner into closest touch with those officially responsible for their prevention, the better. It will be noted that much of such work will be spontaneously done. It therefore involves a district health officer with whom the practitioner is in personal touch. Also the Hobart experiment suggests ways of payment that can gradually be extended.

One essential to any such scheme is, of course, the provision of adequate and widespread laboratory facilities for early diagnosis. And I feel more and more strongly that the principle laid down years ago by the Federal Committee on this subject should be advocated by us in and out of season. I do not care by what authority it is done, so long as it is done and with conflicting political inter-

ests it will only be done as we advocate it. Nothing is more interesting or more cheering than to see the new interest given to country practitioners in their work wherever these laboratories have been established. The surgical conscience of the community has been so educated during the past generation by medical men insisting in and out of season on the necessity for operating theatre and sterilizing outfit, that in every country hospital quite a large sum of money is spent on such equipment. Generally this is about the first thing both doctor and nurse take you to see. The same conscience needs to be cultivated with regard to the provision of laboratories. I was almost saying that I should like, for a change, to see a country hospital where the doctor took me proudly to the laboratory and said there was no operating theatre. But perhaps that is putting it too strongly. But as I think of our responsibility in the matter both to our colleagues and the public, I think of the street urchin who was asked if he knew the meaning of the word responsibility and said: "Well, if I had my pants kept up by string braces and first one button gave way and I tied that bit of string on to another button and then another button gave way and I tied that bit of string on to the same button and at last all the buttons had given way but one, then all the responsibility would be on that button."

Let us approach the matter from another aspect and we shall see that this method of direct medical supervision is being more and more applied to different periods of human life.

The medical practitioner is supervising the health of the unborn child in a way that was undreamt of before; in doing this he is realizing his responsibility in the reduction of natal as well as of maternal mortality. At and during the school going age medical officers are regularly examining young children and putting them in the way of securing treatment and the New South Wales Branch has given us a lead in arranging a scheme of cooperation with the medical officer, by which the members of the Branch are advised of the districts to be traversed by officers. A letter is sent from the Branch office to all practitioners in that district, advising them of the fact and asking them to cooperate by giving medical attention to the ailment mentioned in the slip sent by the medical officer to the parent.

After leaving school the youth is examined for military service by medical practitioners and it only needs machinery like that already in existence with the Education Department to link this up with the general practitioner, so that rejects may be followed up and treated for their disability.

In some States all adolescents entering factories are already being examined by medical men, more and more industries are having periodical examination of their workmen, more and more large organizations are appointing medical men as their advisers and examiners. Certain industrial diseases have already been made notifiable—this list will gradually be extended—thus the medical attendant in these industrial matters is being brought into closer touch with those directing the campaign.

In this direction one of the most striking developments of recent years is the publicity that has been given to the policy of certain American insurance companies in affording periodical medical examinations to their policy holders free of charge, because they have found the advantage of this plan in detecting early deviations from normal. This, of course, is a practice that is especially valuable in middle and later life.

Joslin in the last edition of his work on diabetes illustrates the same point when he says: "The Registrar's office in the city of Boston shows that between 1895 and 1913 the average duration of life in the fatal cases of diabetes amounted to two and three-tenth years; for 1915 it was four and three-tenth years, but for 1920 it was five and two-tenth years." This increase in the duration of life of diabetics was in the pre-"Insulin" days. How much greater the increase is destined to be through "Insulin" no one can predict. This increase in life is put down both to earlier diagnosis and better treatment; the number of early cases that have been accidentally discovered by such routine periodical examinations, is emphasized.

It is quite evident that somewhat similar remarks could be applied to such conditions as hyperpiesis, chronic interstitial nephritis, beginning arteriosclerosis or gradual lessening of cardiac reserve, to say nothing of early cases of cancer and other conditions that would thus be occasionally revealed. If it pays insurance companies to pay for such examinations, surely it pays the individual also to pay for it. And surely the general practitioner should urge such procedure when his patients are approaching middle age and point out to them its value in the preservation of health. That it can be made a general practice is shown by the number of people who are already following the practice, and also by the revolution in the average man's mind which we have witnessed during the last generation regarding the periodic inspection of teeth, a revolution brought about simply by the insistence on its value.

I think that as yet the majority of medical men fail to recognize that in preaching and practising this procedure they are really engaged in public health work. But in what sense does this differ from periodic examinations by Government officials or by industrial or insurance organizations? It is therefore important that this new conception should be emphasized, so that we should carry into our every day medical work this thought of participation in the national health campaign.

In reviewing what has been said it will be noticed that such a plan more widely adopted would mean that periodic examinations of the individual would be going on quite naturally at intervals through the whole of his life. Up to adult life, while he is not a wage earner, the examination would be made by voluntary or government organizations for which he pays nothing. In later life, when he is capable of paying, the examination

would be arranged either by the industrial organizations which employ him, as part of his working condition, or by insurance companies for which his premium pays, or by his family medical attendant for which he pays.

Only two important fields would then remain untouched: (i.) A number of adolescent girls—other than those engaged in factories—for whom it would seem that some scheme like the examination of youths for military service would need to be devised. (ii.) Children of the two to five year age period—too old to attend baby clinics as at present conducted, too young to undergo medical inspection at schools. This has been the last age period to receive much attention, yet it is becoming increasingly evident that it is in many respects one of the most important when we are considering national health. I have stated that it is generally recognized that 95% of the deaths both from whooping cough and measles occur in this period and that in England the deaths from those two causes have exceeded those from all other infectious diseases. It is in the early part of this period that anterior poliomyelitis is chiefly prevalent. Park's investigations into the susceptibility to diphtheria showed that this was greater at this period than at any other stage of life and the chart of deaths from diphtheria in South Australia which I exhibit, shows the regular preponderance of deaths under five years of age from that cause (see Chart III.). Perhaps most important is the matter of tuberculosis infection. We have talked glibly for some time past about all of us being infected with tuberculosis before adult life, but the chart which I

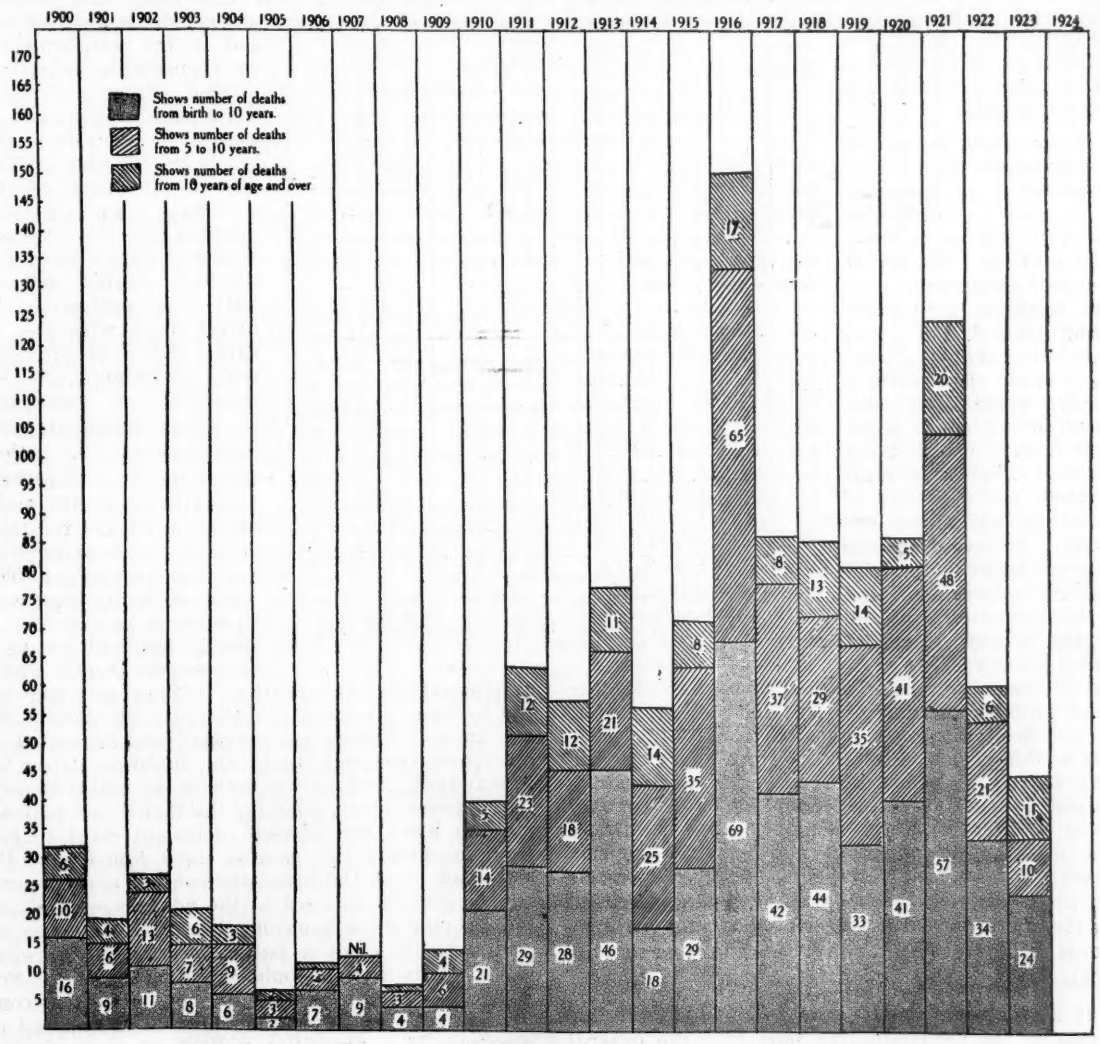

CHART III.

Showing the Total Number of Deaths *Per Annum* from Diphtheria in South Australia. (Extracted from annual reports of the Registrar-General of Births, Deaths and Marriages of South Australia).

show, compiled from American investigations, shows that the sharp rise in such infections occurs from two to six years of age (see Chart IV.).

This age period is therefore *par excellence* the danger period for infections. And this is natural when we think that it is just the age at which the child begins to wander beyond his own back yard, to mix with other children, "swap" toys and apples and above all begin that "commerce in saliva" which has been so graphically described by Chapin.

Perhaps just as important is the fact that has been recently made plain, that it is during this period that the child with his developing emotions is subject by our modern civilization to those psychic shocks which are the bases of many subsequent neuroses. So much so that in America the old figure that two-thirds of mental defectives are the result of heredity is rapidly being abandoned in favour of a lower proportion as this period is being studied from the psychical side.

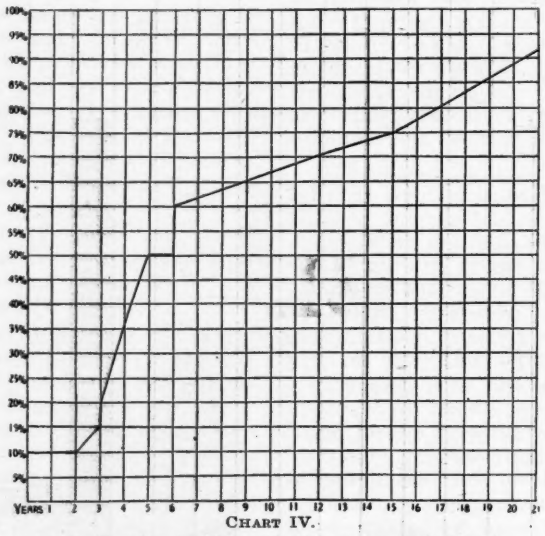

CHART IV.

Graph Showing Incidence of Tuberculous Infection in Human Beings from soon after Birth until Entrance into Adult Life. (Taken from "Nelson's Loose Leaf Medicine," 1922).

To ascertain the proper treatment for this period is certainly our responsibility and I confess that as yet I see no satisfactory solution. The *crèche* and free *Kindergarten* are the methods at present being pushed, but apart from the objection that they deal only with a small proportion of cases, there is the equal objection from a health point of view, that they must increase the very risk of infection which we are seeking to avoid, unless they are under very strict medical supervision and such supervision is not included in any scheme of which I know. The problem is quite different from that of the infant. The chief problem there is dietetic and infection, if it occurs, is of the lower digestive tract. The problem at this period is infection of the upper respiratory tract and mouth and these are particularly spread by that direct infection which is so easy when children congregate together. The child does not need to attend often and with a properly organized health unit it should be quite possible for his card from the baby clinic to be passed on to the district health officer's office and arrangements made for examination once a year at the least.

It may appear that I have over elaborated this theme of the predominating part that the general practitioner must play in the ideal system for the improvement of national health, yet I have felt especially during the last few months that it is not yet sufficiently recognized either by administrators or practising members. Both sections have dwelt rather too exclusively on the old idea of "infectious diseases" under an Act and this not only limits our horizon, but causes us to view the whole matter from a legal standpoint.

For the change to be brought about, it is our responsibility so to prepare the way and so to train ourselves that we shall be ready for action when the change occurs. For it is true of a profession as of an individual that

> He who would win the name of truly great,
> Must understand his own age and the next,
> And make the present with the future merge,
> Gently and peacefully as wave with wave.

In thinking of this change there are certain difficulties which we must face in order that they may be got rid of. For one thing this present limitation of view to certain notifiable diseases has led to the whole matter of cooperation being regarded from a legal standpoint. This has helped to deaden the whole health system. The idea at the back of the scheme which was adopted last year by the Federal Committee for district health officers with the profession in direct touch with him, is rather that of prompt personal communication by telephone or otherwise, the official communication being necessary but rather secondary. This, of course, is anathema to the rigid official mind, but red tape strangles the struggling health service infant. The whole difficulty was well illustrated in the discussion in England last year on puerperal sepsis which all turned on the question: "What are you going to term 'puerperal fever' under the Act?" No one knows. "Puerperal pyrexia" was suggested as an alternative, but again the question arises as to standard. And neither touches the real difficulty, that a practitioner, alike for the sake of his patient, nursing home and himself, does not want to put legal machinery into motion until compelled. On the other hand, the necessary contact and cooperation is secured at once to the advantage of all, if he can ring up a non-competing medical colleague and say, "I've got a patient with pyrexia, what shall we do from a public health aspect?" For what we are all out for is not to secure compliance with an Act, but to prevent the spread of disease. If a practitioner likes to ring up and forego the notification fee, let us be thankful; if on the other hand he sends in a form later, let us still be thankful.

From his experience in the past the administrator with this "legal" idea in his mind fears that the practitioner will not rise to his responsibilities in any scheme involving extensive dependence upon him. From my own personal experience I am sure he will, once he knows something is being attempted.

In the matter of the cases of endemic typhus fever which we have been recording in Adelaide for the past few years, I by arrangement with the State Principal Medical Officer got out a circular in October last asking for voluntary notification of these cases to me, describing the symptoms and promising in each case the informal visit of a quarantine officer for further investigation. For three months nothing happened as if no notice had been taken. On January 5 with the first appearance of a fresh case a man rang up and by the end of the month we had twenty cases notified either by telephone or writing. That was without fee, simply from their interest in the problem.

But while this answers in a special case temporarily, if it is to become a regular procedure, some fee ought to be paid. For suggestions to be made, as was done in one State last year, that medical men might assist health authorities by doing prophylactic injections on their contacts, is not playing the game. Here Hobart is showing us the better way.

On the other hand medical practitioners fear any suggestion of extension of health work because of extra clerical work. I know the difficulties, but I think we have got to face this and find a way out. While the administrator perhaps thinks too much of records, the practitioner thinks too little of their importance in any national scheme of health. It is again a question of an educated public health conscience. The modern practitioner, however busy and rushed, will attend to the most particular details to prevent sepsis in a small wound, simply because he has been trained to its importance, whereas his predecessor forty years ago would have used the first needle and horsehair handy. But he will not go to the trouble of filling in a form because he does not realize its necessity.

Yet it ought to be possible, if a health department wants to find out how many cases of diabetes or lead poisoning are occurring within a given year, for us to be able to send him certificates regularly. If it means extra clerical work, how much is it worth? I knew one busy man who did for years the whole secretarial clerical work of a Branch with an honorarium of £20 a year for clerical assistance. But then he was interested. But it is far better to work out a scheme for payment for clerical assistance in proportion to returns sent in than to shelve the whole question by raising this bugbear of clerical work.

For this matter of correct certification is certainly a responsibility which we as a profession should take forthwith into serious consideration. If we think certain schemes of notification wrong, we ought as a body to protest, keep on protesting till we get the system altered or meet administrators in conference and have the difficulties adjusted. But we certainly ought not to refrain silently from carrying out an obligation.

I confess I am very troubled at the lightness with which many of us regard our responsibilities in connexion with certificates, at the careless way in which men give continuation certificates fortnight after fortnight for sickness or accident, sometimes without seeing the patient; at the way in which they unconsciously connive sometimes at false pretences and above all at the carelessness with which causes of sickness are sometimes stated. Years ago an education authority told me he was compelled to appoint an outside examiner, because he found certificates of the ordinary medical attendant so frequently unreliable and I have learned by sad experience how true this is. Every year I try to impress the importance of this matter on my class in preventive medicine with illustrations of facts within my knowledge. And a few years ago I had occasion to investigate the sickness returns of two Commonwealth departments, employing for the purpose some members of this class during the long vacation. One of them met me afterwards and said: "Well, sir, we thought you were drawing the long bow with some of your illustrations, but what you told us is nothing to some of the certificates we found."

The signing of a certificate of sickness is a small matter, but so is boiling a needle. On the correct performance of either great issues may hang. No detail would seem too trivial, no trouble too great, if in our practice we could but cherish the preventive ideal in medicine as closely as we do in surgery. By repeated effort we should gradually so train ourselves that the performance of these duties would become as automatic as are the daily details of our surgical technique. As one who is naturally careless about small details, I find it extremely difficult so to train myself. But such difficulty does not absolve me from responsibility, for in proportion as I fail, so do I fail in loyalty to the most modern ideals of our profession.

I am reminded here of a story told by our Chairman of a judge who had listened to a long and windy argument by a lawyer on a case before them and finally remarked: "Well, Sir, we have listened to you for some hours and I don't know that we are any the wiser." "At any rate, your Honor," was the reply, "you are better informed." I am afraid I cannot even lay that flattering unction to my soul. But I admire your patience and thank you for your courtesy and kindness.

Reports of Cases.

ACUTE PERNICIOUS ANÆMIA WITH EPISTAXIS.[1]

By J. J. Woodburn, M.B., (Sydney),

Honorary Assistant Surgeon for Ear, Nose and Throat, Saint Vincent's Hospital, Sydney, and Royal Prince Alfred Hospital, Sydney; Honorary Aurist, The Renwick Hospital, Sydney.

A male patient, aged forty years, a physical culture instructor, was admitted to hospital on June 28, 1924, complaining of weakness in the legs and pain in the back and

[1] Read at a meeting of the New South Wales Branch of the British Medical Association on June 11, 1925.

hips of six weeks' duration and hæmaturia of eight days' duration. The pain was rather sharp and continuous, but did not pass into the testicle. No other urinary symptoms were present and micturition was neither painful nor frequent. The patient had had no previous illnesses. The family history was clear, no hæmophilia being recorded.

On admission the patient looked rather sallow, but was otherwise comfortable. Tenderness was present over the lumbar vertebræ together with slight rigidity of the muscles of the back. Some tenderness was elicited in front and at the back of both hip joints and some pain was caused by passive flexion and extension of the joints.

Examination of the nervous system revealed weakness of both legs. Sensation was normal, but knee jerks were exaggerated. The plantar reflexes were flexor in type. The pupils reacted to both light and accommodation. The coagulability of the blood was delayed, the time being eight minutes. On examination of the urinary system it was found that the kidneys were palpable and that slight tenderness was present in the left kidney on deep palpation. The urine at the time of admission was normal. Examination of the other systems failed to reveal any abnormality. The systolic blood pressure was 120 millimetres of mercury and the diastolic 65. The temperature was 37.5° C. (99.6° F.) and the pulse rate 96 in the minute.

Two days after admission to hospital the patient had two severe attacks of epistaxis, two days later he had an attack of painless hæmaturia. The epistaxis recurred again several times and necessitated plugging of the nose and a hypodermic injection of ten cubic centimetres of horse serum. The hæmaturia became more prominent and the clinical chart was characterized by evening rises of temperature. X-ray examination of the lumbar region of the spine, the hip joint and the urinary tract revealed no abnormality. The first blood count was made five days after admission to hospital. The erythrocytes numbered 5,670,000 per cubic millimetre, the hæmoglobin value was 80% and the colour index 0.8. No abnormality of the red cells was found. The leucocytes numbered 9,200 per cubic millimetre and of these 62% were neutrophile cells, 34% were lymphocytes, 3% were larger mononuclear cells and 1% eosinophile cells. The second blood count was made on February 6, 1925, and was quite normal. The epistaxis continued to be very severe and the patient's general condition was becoming worse. Blood culture failed to reveal the presence of any organism. Blood counts made at intervals of a week revealed an increasing anæmia, the blood picture being of the pernicious type. Thus the erythrocytes numbered 2,100,000, the hæmoglobin value of 55% and the colour index 1.3. Anisocytosis and poikilocytosis were present together with polychromatophilia and a few normoblasts were seen. Later on megaloblasts were found in large numbers, forty megaloblasts being found in counting two hundred white cells. The red cell count finally decreased to 1,000,000 and the colour index was 1.1. The patient was given two blood transfusions of six hundred cubic centimetres of blood and although the condition was temporarily restored the patient still continued to go down hill. The epistaxis continued and bleeding from the gums occurred and the skin became of the lemon yellow colour. The temperature was of the hectic type. The pulse rate was increased. Six weeks after admission the patient became very restless with mild delirium. He continued in this condition for two weeks, finally became comatose and died on March 27, 1925. Owing to the persistent and severe epistaxis this patient was constantly under my care.

Post Mortem Findings.

The skin of the body was a lemon yellow colour. The lungs were found emphysematous with congestion at the bases and hæmorrhages throughout. The heart was heavily laden with fat, its musculature was pale and it was the seat of fatty degeneration. A large amount of white blood clot was found in the right side of the heart. Large hæmorrhagic lymphatic glands were found in the retroperitoneal tissue. The liver was large and contained areas of necrosis with some iron pigmentation in the lobules. Considerable fatty degeneration was present. No interstitial hepatitis was found. The spleen was large and purple coloured with much congestion. The kidneys were large and pale and cloudy swelling of the cortex with medullary hæmorrhages was found. Examination of the bone marrow revealed almost complete involvement of the yellow marrow by the red. Enormous numbers of megaloblasts were found on examination of a slide prepared from the marrow.

Comment.

The unusual and interesting features of this case are (i.) the hæmorrhages, (ii.) the advance of the pernicious type, (iii.) the general condition of the patient, (iv.) the mild fever of a hectic type, (v.) *post mortem* findings.

The onset of the conditions gave no clue to the ultimate diagnosis and termination of the case. The history suggested some lesion of the spine and hip joints and of the renal tracts. As was shown by examination these systems were unaffected. The patient's condition was probably one of a rapidly advancing hæmolytic anæmia (possibly of unknown streptococcal origin) with rapid destruction of red cells and reversion to a primitive type of megaloblastic red cell formation. That is it was an acute pernicious anæmia probably due to some unknown infecting organism as shown by the rise in temperature and pulse rate. The pain in the spine and in the region of the hip joints was probably due to the changes taking place in the bone marrow. The hæmorrhages, of course, are usual in any form of pernicious anæmia, more especially in such an acute case as this. The *post mortem* report confirmed the diagnosis.

MAYDL'S HERNIA.

By George Bell, O.B.E., M.B., Ch.M., (Sydney),
Honorary Surgeon, Sydney Hospital; Visiting Surgeon, Prince of Wales Hospital, Randwick.

The case recorded below is of interest to those who may be called on to operate on strangulated herniæ in that it clearly shows the importance of withdrawing and inspecting that portion of the gut which lies within the abdomen and immediately proximal to the constriction.

In retrograde strangulation the seat of strangulation is at the neck of the sac, but the strangulated loop lies in the abdomen.

Various forms are described, the one most usually referred to being that in which the intestine descends into the sac in the form of a W, the two external loops being connected by an internal or intraabdominal loop as in the case here reported. The external loops may appear almost normal and the risk is that they may be replaced before inspection of the intervening portion. If this be gangrenous or its vitality seriously impaired, a fatal result will almost certainly ensue.

Retrograde strangulation is referred to in the "Manual of Surgery" of Rose and Carless, 1920, at page 1226. An excellent description of the several varieties is given by Lejars's "Urgent Surgery," 1910, Volume II., pages 187 to 189. Spencer Mort in *The Lancet* of May 19, 1917

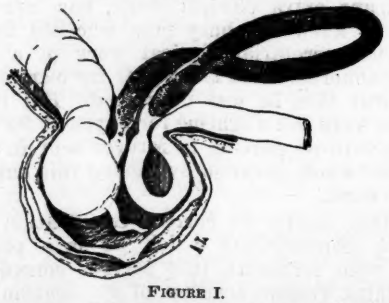

Figure I.
Showing Retrograde Strangulation of the Intestine.
(After Laroyenne; Reproduced by Lejars.)

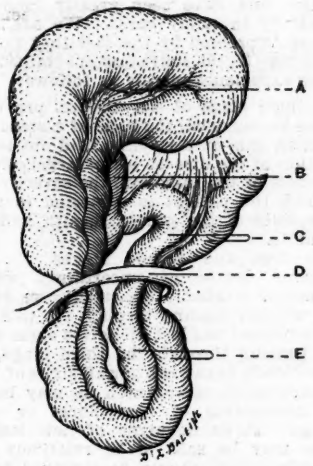

FIGURE II.

Showing Retrograde Strangulation of the Intestine. *A* = middle portion of the loop; retrograde strangulation. *B* = caecum. *C* = the two entering limbs of the loop. *D* = neck of sac. *E* = intrasacular portion of the intestine, not strangulated. (After von Wistinghausen; Reproduced by Lejars.)

describes two cases in detail and gives numerous references to the literature of the subject.

Retrograde strangulation has been described as affecting bowel, omentum, the appendix and Fallopian tube. Lejars in concluding states:

> Although uncommon, retrograde strangulation is a peculiarly grave condition. The practical conclusion is this—the contents of a hernial sac, no matter how satisfactory their appearance may be, must never be replaced in the abdomen without a healthy portion of sufficient length having been first drawn down from above the ring and without the whole zone of strangulation having been adequately explored by the sac and into the abdomen.

Clinical History.

H.E., aged fifty-three years, a gardener, was admitted to Sydney Hospital at 3.45 a.m. on May 4, 1925, suffering from a strangulated right inguinal hernia.

He stated that the hernia had been present since childhood and that at 8 p.m. on May 3 the hernia had become swollen and painful. Neither he nor his friends had been able to reduce it. His bowels were open at 9 p.m. on May 3 and he had been vomiting since that hour. The patient also said that the hernia had been strangulated before, but he had reduced it.

FIGURE III.

Diagram Illustrating Hernia in Dr. Bell's Patient. *A* = intrasacular portion of intestine, not strangulated. *B* = retrograde strangulation of intra-abdominal loop.

Examination revealed a large swelling in the right inguinal region extending into the scrotum. This swelling was very tender and irreducible.

The apex beat was in the sixth left intercostal space and ten centimetres (four inches) from the middle line and there was a well marked diastolic murmur audible at the base of the heart (aortic regurgitation).

At 4.20 a.m. a general anæsthetic (ether) was administered by Dr. Stevenson. The hernia was exposed by an oblique incision in the right inguinal region. The sac was opened and found to contain two loops of small gut. These were slightly swollen and congested, but otherwise their appearance was normal. The constriction at the internal abdominal ring was divided.

An intraabdominal and intermediate loop of gut continuous with the two loops in the sac was drawn down. It was 12.5 centimetres (five inches) in length and gangrenous. The strangulation was of the variety often referred to as "retrograde" and the hernia one sometimes referred to as Maydl's hernia. There was very slight distension of the gut above the site of constriction. Twenty-five centimetres (ten inches) of small intestine including the gangrenous segment were resected, the cut ends of the intestine being crushed, ligatured and invaginated with purse string sutures. A lateral anastomosis was made, "tannic gut" being used as suture material. The lower end of the portion of ileum resected was thirty centimetres (twelve inches) from the ileo-caecal valve. The sac was then ligatured and the radical cure completed by Bassini's method. An anchored dressing was applied. Convalescence was uneventful despite the fact that the patient who was of low grade intelligence, micturated over his dressings and wound. The wound healed by first intention.

Reviews.

TWO BIOLOGICAL PROBLEMS.

THE ambitious *Handbuch der Biologischen Arbeitsmethoden* under the editorship of Abderhalden continues to appear in widely diverse parts. The two latest that have been submitted for review are "Methods for Determining Gas Metabolism in Man and Animals" by Francis Benedict[1] and "Mechanics of Joints" by R. Grammel and "Graphic Methods for Recording Normal and Pathological Movements" by E. Hirt.[2]

One always looks forward with pleasurable anticipation to a *résumé* by Dr. Benedict of his most recent work in respiration and this one fully comes up to the standard of its predecessors. The magnificent equipment of the famous Boston laboratory is here once more described with the latest improvements added. Great ingenuity has been exercised in the endeavour to record movements and metabolic changes by automatic graphic devices. Whether some of these pertain rather to the category of luxuries than of necessities is a question that may occur to the reader. A considerable portion of the number is devoted to a description of a clinical apparatus for the estimation

[1] "Handbuch der Biologischen Arbeitsmethoden" (Handbook of Biological Methods), Edited by Geheimer-Medizinal-Rat Professor Dr. Emil Abderhalden, with collaboration of 500 Eminent Specialists; Division IV.: "Angewandte Chemische und Physikalische Methoden" (Applied Chemical and Physical Methods), "Methoden zur Bestimmung des Gaswechsels bei Tieren und Menschen" (Methods for the Determination of the Gaseous Metabolism in Animals and Men), by Francis G. Benedict, Carnegie Institution, Washington; 1924. Berlin: Urban und Schwarzenberg. Crown 4to., pp. 674. Price: 9.60 Marks, equals approximately 10s.

[2] "Handbuch der Biologischen Arbeitsmethoden" (Handbook of Biological Methods), Edited by Geheimer-Medizinal-Rat Professor Dr. Emil Adberhalden, with Collaboration of 500 Eminent Specialists; Division V.: "Methoden zum Studium der Funktionen der Einzelnen Organe des Tierischen Organismus" (Methods for the Study of the Function of the Individual Organs of the Animal Organism); "Theoretische Grundlagen der Gelenkmechanik" (The Theoretical Basis of the Mechanics of Joints), by R. Grammel; "Graphische Methoden zur Darstellung Normaler und Pathologischer Willkürlicher Bewegungsabläufe" (The Graphic Method of the Illustration of Normal and Pathological Voluntary Excursions of Movement), by E. Hirt; 1924. Berlin: Urban und Schwarzenberg. Crown 4to., pp. 390. Price: 5.40 Marks, equals approximately 6s.

of oxygen consumption. Every detail is given and the tests to which the apparatus should be put before being employed on the human being. The exactitude demanded might serve as a useful corrective to those young clinicians who imagine that they can determine basal metabolism with a Douglas's bag and a minimum of experience. A useful description is also given of Carpenter's apparatus for gas analysis which is constructed on the familiar lines of Haldane's. At the end are tables to facilitate metabolic calculations.

A severely mathematical treatment of the dynamics of joint movement has its attractions from the scientific aspect, though the day is remote in which it can have practical value. Dr. Grammel approaches the problem armed with the newer mathematical methods, but we doubt whether this should allow him to ignore, as he does, all previous work on the subject. It is also significant that there is only one quotation from British sources, namely Love's "Elasticity," and that from a German translation! The vector method is used and the analysis is restricted to movements of a single joint. To what fearful complexities of mathematical handling the investigation of a complete limb would lead must be left to the imagination.

Dr. Hirt's description of appliances to record muscular movements is too limited in scope. What is given is good of its kind and there are some attractive suggestions concerning synergic and antagonistic muscles. But this brief essay hardly comes up to the standard we expect under Professor Abderhalden's editing.

A TEXT-BOOK ON LEPROSY.

All students of the problem of leprosy will be grateful to Sir Leonard Rogers and Dr. Ernest Muir for their excellent text-book on leprosy which has recently appeared.[1]

The book is divided into six sections with as appendices the *Indian Lepers Act* as amended up to 1920 and the official text of the resolutions of the International Conference on leprosy at Strasbourg, 1923.

In section one the history of leprosy and its distribution are dealt with, distribution being as accurately outlined as statistics will allow. A sketch map showing the distribution and the rates of incidence throughout the world is included at pages twenty-four to twenty-five, but is somewhat misleading as regards Australia, since it indicates mild infection of at least a third of the whole State of Queensland (including practically all its coast line) and does not indicate any leprosy in Western Australia, the Northern Territory or New Guinea. The history of leprosy, though short, is interesting and well written.

In section two the authors deal with the factors influencing the origin and spread of the disease and devote particular attention to influences affecting the contagiousness of the disease.

Section three follows as a natural sequence and deals exhaustively with the measures of prophylaxis which have stood the test of time successfully or are indicated as desirable in the future. The very close acquaintance of the authors with the practical side of leprosy control is made very manifest in this section of the volume.

In section four, there is a detailed description of the causative bacillus introducing many facts of which the ordinary practitioner is unaware.

Sections five and six in which are described respectively the clinical manifestations of the disease and the methods of its treatment, are excellently written and illustrated and may be said to represent a thorough exposition of scientific knowledge on the subject at the present time.

From time to time so-called cures for leprosy have been advocated and have had considerable vogue. Since these have usually been disappointing in spite of the claims of their discoverers, it is pleasing to note the admirable moderation which these authors introduce in regard to the particular methods adopted by them.

Workers in the subject in Australia and New Guinea have used the Rogers treatment almost since it first attracted public attention and have been greatly impressed by its value and efficacy in many cases. We are, if anything, therefore, more impressed by the fact that the discoverers should make for it no extravagant claims, summating their immense experience merely as follows:

> In the third stage of the disease, provided exciting causes can be removed, the hope of a steadily diminishing infection can, as a rule, be held out to the patient, the duration of the disease being largely determined by the grossness of the infection, the severity of the treatment which the patient is subjected to or is able to bear, the state of his general health and his activity in his habits.
>
> In the first and second stages . . . there is . . . some degree of uncertainty whether, even under the best available treatment, the disease can be arrested without passing through the third stage. . . .
>
> When a patient has lost all active signs of the disease without passing through the third stage, he becomes bacteriologically negative after all signs of nerve lesions have disappeared, except such as may be due to permanent destruction of nerve-fibres or sensory end-organs, and shows no signs of new lesions for two years, he may be said to be relatively cured. The term *absolute* cure should be reserved for those who have passed through the third stage and have a high degree of immunity.
>
> It will be realized that without this immunity in a disease in which the germs can lie latent for over twenty years, it is impossible to prophesy that circumstances will not occur in which some few lepra bacilli, still hiding among the tissues of the body, will again produce the disease in a patient who formerly suffered and is now apparently cured. . . .

The volume is one which should be possessed by every student of preventive medicine in tropical countries.

TONSILLECTOMY.

The advocacy of the guillotine for the removal of the tonsil, making use of the alveolar eminence of the mandible as a vantage point from which to manipulate the organ, is the purpose of a very excellent monograph by Dr. Greenfield Sluder.[1] The book deals in a most exhaustive way with all aspects of the subject. In the earlier chapters the author discusses the anatomy, embryology, physiology and general pathology of the tonsils. Indications for operation and prognosis are next considered. The latter half of the book is concerned with the problems associated with the operation and the technique employed. Sluder holds that the method devised by him for the complete removal of the tonsil—"the Sluder method"—in its simplicity, adequacy, ease of performance and absence of complications has advantages over all other methods of tonsil enucleation. He describes this procedure in detail. He traces the history of the operation from the first description of the operation by Celsus in 10 A.D. to the present, alluding to the fact that the guillotine of the present day is an evolution from the uvulatome described by Bartholin as the design of a Norwegian peasant, Canute of Thorburn, in 1641. This and subsequent models are depicted in numerous illustrations. He prefers nitrous oxide as the anæsthetic. The book is profusely illustrated and the details of the procedure can be readily followed from the figures alone without reference to the text. A chapter on adenoidectomy by direct vision with the use of an instrument devised by Dr. I. D. Kelley, Junior, is included.

A feature of the volume is the extensive bibliography incorporating one hundred and twenty-three references; there is also a good index. The book must be regarded as an admirable exposition of the subject of tonsils and their extirpation by a laryngological surgeon of vast experience.

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[1] "Leprosy," by Sir Leonard Rogers, C.I.E., M.D., F.R.C.P., F.R.C.S., F.R.S., I.M.S., and Ernest Muir, M.D., F.R.C.S. (Edin.); 1925. Bristol: John Wright & Sons, Limited; Demy 8vo., pp. xii. + 301. Price: 10s. 6d. net.

[1] "Tonsillectomy by Means of the Alveolar Eminence of the Mandible and a Guillotine, with a Review of the Collateral Issues," by Greenfield Sluder, M.D.; 1923. St. Louis, U.S.A.: C. V. Mosby Company; Royal 8vo., pp. 176, with 90 illustrations. Price: $5.00.

The Medical Journal of Australia

SATURDAY, AUGUST 29, 1925.

A National Health Scheme.

A SHORT time ago the Council of the Queensland Branch of the British Medical Association took advantage of the visit of the members of the Royal Commission on Health to Brisbane by inviting Dr. F. S. Hone to read a paper at a meeting. Dr. Hone undertook a task of great difficulty. The fact that he is engaged as a Royal Commissioner in an inquiry into the whole subject of the control of the public health, prevented him from dealing with all those topics of hygiene on which the Commission will report. This left him a very limited field for discussion. Although a few subjects could have been found with which the Commission has not concerned itself directly, each one of these subjects has some more or less intimate bearing on the points contained in the terms of reference of the Commission. He therefore chose to speak in general terms and to give broad indications to the medical profession concerning the part it will be required to play in the near future in the scheme for the improvement of the health of the people. Dr. Hone's sermon on responsibilities should be studied by all, for each medical practitioner will have to identify himself with the movement and anticipate to some extent the demands of the health authority, unless he is prepared to allow his more advanced and enterprising colleague to leave him far behind. The medical profession is now taking the lead in regard to the preservation of the public health and the prevention of disease. In the past the public has been content to allow health matters to occupy a subordinate position in national affairs. The older conceptions of hygiene have been found to be insufficient. While it is important to have an ample supply of pure water, a safe water-borne sewerage system and an efficient service for the removal and destruction of garbage and refuse, much more is needed to combat infective diseases. The sanitary engineer can be trusted to control the mechanical services, although the water supply of some of our cities is lamentably insufficient, the sewerage system is too restricted and in many situations the disposal of house garbage far from ideal. The real attack on infective disease can be delivered only by medical practitioners who have studied its ætiology and who have continual access to the possible sources of infection. This task of attacking disease in the mass can scarcely be performed by the medical members of the health authority alone. The assistance of the practising portion of the medical profession must be enlisted, if real progress is to be made.

The Royal Commission on National Insurance in their report (see THE MEDICAL JOURNAL OF AUSTRALIA, June 6, 1925, page 606) recommended that "a national health scheme be instituted which will provide adequate medical treatment for the people and which will provide the requisite machinery for the prevention of sickness and accident and (i.) that such scheme be dissociated from the administration of the national insurance fund; (ii.) that the functions and objects of the Health Department be extended in such manner as will enable provision to be made as early as possible for the effective supervision of adequate medical services, especially with respect to maternity treatment." The wording of this recommendation is somewhat involved, but two fundamental ideas emerge from it. The first is that medical benefit is to be divorced from the national scheme and the second is that with medical benefit some scheme of prevention is to be provided. Dr. Hone's article embraces both subjects without discussing the form of machinery that may be provided. Indeed the more the question of the cooperation of the medical profession with the health authority is studied, the more apparent it becomes that the control of the health of the community and the early treatment of disease form a large part of the assistance to be rendered by the general practitioner.

The medical profession as a whole must accept the responsibility for a serious campaign against preventible disease. The Royal Commission on National Insurance was obviously not in a position to devise a working scheme. The Commissioners

indicated that a national health scheme should be instituted, but went no further. We learn that the terms of reference of the Royal Commission on Health have now been extended to include the recommendation of a detailed scheme for this purpose. The Commissioners with one exception are medical practitioners and all are competent to handle this difficult problem. The skeleton of a scheme has already been submitted by the Federal Committee with the approval of the several Branches of the British Medical Association in Australia. The Royal Commissioners have no easy task in devising all the essential details of a scheme to render it workable and satisfactory. The medical profession can help at this stage by considering the constituent parts of the scheme. At a later stage they must honour the agreement implied when the Branches through the Federal Committee nominated Dr. Hone as a member of the Commission and when they learned that Sir George Syme was the nominee of the Government. This means that the medical profession must do everything in its power to make the scheme a real benefit to the people of Australia.

Current Comment.

TRYPTOPHANE AND THYROXIN IN THE DISEASED THYREOID GLAND.

THE therapeutic activity of thyreoid gland extract depends on the iodine which it contains. The nature of this iodine has naturally been the subject of much investigation. The active substance has been shown to be of the nature of a globulin and has been called thyreoglobulin. As a result of partial hydrolysis of thyreoglobulin with sulphuric acid, Bauman obtained a product which he named iodothyrin and which retained the original activity of thyreoglobulin. Kendall succeeded in carrying the fractional process still further. If the process of hydrolysis is carried out by treating thyreoglobulin with alkaline alcohol, two groups of products result. One group is soluble in dilute acid and the other is not. The acid soluble substances contain but little iodine and are inert from both a physiological and a therapeutic point of view. The substances which are insoluble, on the other hand, are active and contain a high percentage of iodine. Kendall obtained from the latter group a white crystalline product which he termed thyroxin. The formula of this substance was stated in a recent article in this journal by Dr. F. S. Hansman. Thyroxin is trihydro-triiodo-oxy-β-indol propionic acid. It has been shown to be a derivative of indol and is therefore related to the tryptophane groups of the protein molecule.

Dr. James F. Weir has recently studied the thyroxin and tryptophane content of a series of thirty-seven goîtres.[1] Twenty-four of these goîtres were the seat of parenchymatous hypertrophy (exophthalmic goître) and thirteen were adenomatous glands. He refers to the findings of Wilson and Kendall that in normal glands approximately 50% of the total iodine is stable in boiling solution of alkali and is not soluble in acid (thyroxin). In adenomatous goître this may be changed. In the small series of adenomatous goîtres investigated by Dr. Weir the average was 52%, the extremes being 15% and 66%. This average is higher than that reported by Wilson and Kendall, their percentage was thirty in adenomatous goître with hyperthyreoidism and thirty-four in adenomatous goître without hyperthyreoidism. Dr. Weir found that it was impossible to obtain any indication of the presence or absence or severity of hyperthyreoidism from either the thyroxin content or the total iodine content. He points out, however, that in all instances in which a high total iodine content was found, the goître was described by the pathologist as colloidal in type. In regard to hyperplastic glands (exophthalmic goître) Dr. Weir refers to the two changes indicated by Wilson and Kendall, namely, low total iodine content and a low percentage of iodine as thyroxin. In the series of these two observers the total iodine content was 0.11% and the average thyroxin content was 28%. In Dr. Weir's series of twenty-four cases of exophthalmic goître the percentages were respectively 0.26% and 43%. The difference in these figures is regarded by him as being undoubtedly due to the administration of iodine in the form of Lugol's solution to all patients for a variable length of time before their operation. He looks upon this as a chemical criterion which agrees with the clinical improvement of the patient. It is worthy of note, too, that Dr. Weir could establish no relationship between the basal metabolism and the thyroxin content. In the series of exophthalmic goître cases in which the percentage of iodine as thyroxin was 43, the average basal metabolic rate was + 56 and in the adenomatous group in which the percentage of iodine as thyroxin was 52, the basal metabolic rate averaged + 27. At the same time it must be remembered that the series is a small one and that the exophthalmic goître patients, as mentioned already, received treatment before operation. Dr. Weir does not state how often the basal metabolic rate estimations were made, nor how long before the removal of the gland this was done.

On account of the structural relationship between thyroxin and tryptophane it was thought that a determination of the amount of the latter might manifest some variation according to the pathological condition of the gland. The average tryptophane content in fifty-two glands removed at operation was 29.6 milligrammes in each gramme of dried tissue or approximately 3%. On classifying the

[1] *The American Journal of the Medical Sciences*, June, 1925.

glands clinically or pathologically no characteristic variations were found. Moreover no relationship could be established between the thyroxin content, the tryptophane content or the basal metabolic rate.

ABDOMINAL TORSION OF THE OMENTUM.

Torsion or twisting of the omentum on itself is not uncommonly seen in association with herniæ. In the absence of hernia it occurs but rarely. Although cases of the latter variety have been reported from time to time in the literature, authors of textbooks do not devote much space to its discussion. Moreover, in discussing torsion of the omentum writers have not always been careful to distinguish between those varieties in which hernia is an associated factor, and those which occur in the absence of hernia.

Many hypotheses have been advanced in regard to the ætiology of the lesion uncomplicated by hernia. These have been discussed recently by Mr. Ernest Cowell in connexion with a case reported by him.[1] He refers to anatomical facts which have a surgical bearing on torsion of the omentum. Developmental abnormalities appear to be almost unknown. Baldwin supposed that a congenital malformation of the omentum might lead to pedicle formation. There is no evidence to support this view. At the same time twisted portions of the omentum may appear to be accessory and Mr. Cowell refers to the third omentum of Bierman, a triangular fold which may be found hanging down over the right half of the stomach and which may produce symptoms simulating gastric ulcer. The size and weight of the great omentum vary according to the obesity of the patient. The right border of the omentum usually presents one or more processes and, lying as it does over the caecum and ascending colon, it undergoes more movement than the left border. This may account for the greater frequency of torsion occurring on the right side. The mobility of the omentum depends on diaphragmatic action, intestinal peristalsis and on movements of the abdominal wall. Jaboulay thought that the condition resulted from an exaggeration of the normal movements. Mr. Cowell thinks that this is probably true in many cases, since neither a contributory anatomical cause nor a history of trauma is present. The arrangement of the blood vessels according to Payr is an important factor in the ætiology. If the veins become engorged, traction is exerted on the accompanying arteries and their elasticity causes torsion. In regard to the nerve supply of the omentum Mr. Cowell points out that branches of the splanchnic nerves run upwards over the colon and unite with nerves from the stomach to join the semilunar ganglia. Posteriorly one or two nerves run with the colic vessels to join the cœliac plexus. Pain is always felt when torsion occurs and is always situated on the right side of the abdomen.

Other hypotheses advanced to explain the ætiology include that of Bazy that it is due to increased intestinal peristalsis. It is difficult to believe that this alone would cause torsion; if it were so, torsion would probably be much commoner than it is. It is well known that the omentum becomes involved very frequently in many inflammatory lesions in the peritoneal cavity. In fact it is apparently used by Nature as a barrier to limit the spread of such conditions as acute appendicitis. This led Skeel to express the opinion that omental thickening might give rise to subsequent twisting. Some of these views are ingenious, but the fact remains that cases occur in which no apparent cause, either actual or contributory, can be found.

Mr. Cowell has collected eighteen cases from the literature, cases in which no association with hernia was found. Only one of these comes from Australia; the report of this was made by Syme in 1902. In regard to the clinical aspect of the condition Mr. Cowell points out that it occurs most frequently at the period of young middle age in persons who have a tendency to stoutness. A diagnosis of mild appendicitis is usually made and the ill defined doughy mass is mistaken for an appendiceal abscess. The gravity of the patient's condition, however, and the size of the mass are out of proportion to the duration of the illness. Finally, torsion of the omentum may be suspected when a rush of blood stained serum occurs during a laparotomy on an acutely or subacutely inflamed abdomen.

[1] *The British Journal of Surgery*, April, 1925.

THE PRIZE ESSAY ON MATERNAL MORBIDITY AND MORTALITY.

The announcement on another page of this issue of the award by a special subcommittee of the Melbourne Permanent Committee for Post-Graduate Work of a prize of one hundred and fifty guineas to Dr. E. S. Morris, of the Department of Public Health of New South Wales, for his essay entitled *"Salus Populi Suprema Lex"* marks the close of the first stage of an important campaign. It will be remembered that about a year ago the Committee invited members of the British Medical Association in Australia to submit essays on the causes and prevention of maternal morbidity and mortality. An anonymous benefactor of mankind had placed a substantial sum of money at the disposal of the Committee in order that a prize of value might be offered for the best essay. The importance of this movement has been emphasized on many occasions in these columns. A small but highly competent subcommittee was appointed to adjudge the merits of the sixteen essays submitted. This subcommittee has decided that Dr. Morris's essay is the best, that two others are close competitors and that a fourth deserves honourable mention. Dr. Morris's essay will be published in an early issue of this journal. It is to be hoped that the substance of the other three essays together with the contained recommendations will be made available to the medical profession. The second stage of the campaign will comprise the creation of machinery for the effective application of the suggested measures of prevention.

Abstracts from Current Medical Literature.

OPHTHALMOLOGY.

Relationship Between Subarachnoid and Intraocular Hæmorrhage.

G. RIDDOCH AND C. GOULDEN (*Proceedings of the Royal Society of Medicine*, December, 1924) give an account of subarachnoid hæmorrhage following the rupture of a basal aneurysm and the ophthalmoscopic appearances observed. This condition formerly undiagnosed and found only *post mortem*, presents some definite clinical indications. Though occurring sometimes suddenly in a previously healthy subject, generally it is found that the patient had been suffering from severe headache, tinnitus and epistaxis. When the rupture occurs he sometimes rapidly passes into a condition of coma, but more usually maintains partial consciousness resembling meningitis. An invariable sign of great importance is the presence of blood in the spinal fluid found on lumbar puncture. Recovery from the first seizure is common, but recurrences often occur and one may prove fatal. The ophthalmoscopic signs are rapidly appearing papilloedema (once recorded within half an hour of the hæmorrhage), retinal hæmorrhages, usually small and near the disc, and more rarely vitreous hæmorrhages. *Post mortem* examination shows that the optic nerve sheath is tensely filled with blood clot. It is this distension which, pressing on the retinal vein, produces the papilloedema and retinal hæmorrhages.

Tints and Their Value.

ARNOLD LAWSON (*British Journal of Ophthalmology*, March, 1925) has carried out an investigation on the value of the various tints used with spectacles. He deprecates the fashion of the too frequent ordering of tinted glasses and of exaggerating the danger of ultra-violet rays which in most circumstances are quite harmless. The cornea and lens absorb almost all the ultra-violet rays of sunlight. The eye is less protected from the luminous and infra-red rays, but even here some protection is afforded by the chorioidal pigments and the closure of the pupil. Samples of variously tinted glass were subjected to spectroscopic analysis and a graph demonstrates clearly what rays are excluded by the various tints. Peacock blue absorbs all rays longer than 570 $\mu\mu$ and all shorter than 400 $\mu\mu$, thus affording the maximum protection both to ultra-violet and red and infra-red rays. The various types of Crookes's glass absorb the ultra-violet rays (below 365 $\mu\mu$), but to less extent the red and infra-red rays. Crookes's glass has the advantage of being constant. Fienzal glass cuts off the ultra-violet rays, but less of the red rays than Crookes's glass. It is not standardized. London smoke cuts off less ultra-violet and still less infra-red rays, unless the deeper tints are used. Amber glass was found very ineffective. For snow glare peacock blue is the most effective, but its effect is too depressing for general use. Crookes's glass should be ordered for incipient cataract and for lenses after extraction.

Ionization with Atropine.

DR. FIETTA (*Revue Generale d'Ophthalmologie*, August, 1924) publishes an account of his experiments in ionization with solutions of atropine sulphate. Experiments with rabbits proved that atropine sulphate with ionization produced a quicker and fuller and more lasting mydriasis than when used merely as drops. Hence ionization does not destroy the properties of the alkaloid. He tried the process on four patients with chronic iridic synechiæ with favourable results. He used a one in a thousand solution and a current of one and a quarter milliampères for two minutes.

Adrenalin Reaction in Primary Glaucoma.

M. J. SCHOENBERG (*Archives of Ophthalmology*, May, 1925) recalls Knapp's adrenalin reaction in primary glaucoma and comments that it is an important contribution to the subject. After the tension of an eye had been estimated and the size of the pupil measured one drop of adrenalin solution is instilled every few minutes until five instillations have been made. After half an hour the pupil is measured again. A preliminary instillation of "Holocain" prevents the patient squeezing out the adrenalin. In some patients with latent or confirmed glaucoma one drop of adrenalin is sufficient to dilate the pupil in a short time, in others it takes five drops one entire hour to produce mydriasis. The author applied the test to the children and grandchildren of glaucoma patients to determine their susceptibility to or inheritance of the disease. Thirty-seven individuals were examined and 50% yielded a positive response to the Knapp adrenalin test.

Lens Antigen Extract Treatment of Cataract.

A. E. DAVIS (*Archives of Ophthalmology*, March, 1925) accepts Roemer's theory of the cause of cataract, namely, faulty metabolism in the lens through toxins in the blood. A sensitization test injection of four or five drops of lens antigen should first be given to the patient. If he is not hypersensitive, therapeutic injections are commenced on the following day. As a rule 0.5 cubic centimetre is injected under the skin and the dose increased by 0.5 cubic centimetre (or one cubic centimetre in vigorous patients) in subsequent injections. Usually a dose is given every second day, but good if not better results follow from daily injections. The maximum dose is eight cubic centimetres in women and ten cubic centimetres in men. Larger injections are followed by dizziness, pain and nausea. Fifty doses constitute a course of treatment extending over a period of about four months. Improved vision resulted in eighty-six among one hundred and thirty-one patients suffering from cataracts or 65.64%; arrest without improvement occurred in thirty-six eyes, 27.48%, and advance of the cataract resulted in nine cases, 6.87%.

Intracapsular Extraction of Cataract with Special Forceps.

A. H. H. SINCLAIR (*Edinburgh Medical Journal*, January, 1925) describes his method of extraction of cataract in the capsule with specially designed forceps. His instrument is modified from Kalt's forceps. It is blunt and toothless. The upper aspect of the closed blades forms a small spoon-shaped concavity or cup. After iridectomy the forceps are introduced closed, placed lightly on the lens capsule beyond the centre of the lens and opened four or five millimetres. They are then closed without delay with gentle pressure on the capsule. The forceps are then lifted towards the cornea and traction is applied laterally in different directions. When dislocation is effected below, gentle traction is made to deliver the lens. The vision of forty among fifty-two patients treated in this way was "$^{6}/_{12}$" or better.

Projection and Double Vision.

A. DUANE (*Archives of Ophthalmology*, May, 1925) discusses some new points of view on the subject of projection and double vision. In vision with one eye the conception of the position of an object is derived from a concentration of visual and postural (that is muscular) projection, the former giving objective and the latter subjective orientation. A prism disturbs visual projection and muscle paralysis postural projection, producing false conceptions. Monocular projection affords orientation in a transverse and not in an antero-posterior plane.

Secondary Cataract Opening by Single Straight Incision.

J. M. WHEELER (*American Journal of Ophthalmology*, March, 1925) describes what he considers the best and safest method of operating on secondary cataract. He uses a sharp-pointed knife eighteen millimetres long and one millimetre wide. The eye is fixed below and the knife, held firmly between finger and thumb, is inserted at the limbus above and the point carried behind the lower border of the iris. Here the knife is inserted into the capsule and with a forward straight movement of the finger and thumb holding the knife with its blunt edge against the corneal wound, the cutting edge of the knife travels in the opposite direction, making a straight incision right up to the original puncture. Iridotomy may be performed by the same manœuvre.

LARYNGOLOGY AND OTOLOGY.

Intralabyrinthine Pressure Balance.

F. PEARCE STURM (*Journal of Laryngology and Otology*, March, 1925) traverses statements in Schafer's "Physiology" in regard to intralabyrinthine pressure-balance. To Schafer's statement that "in the absence of the *fenestra rotunda* any pressure on the base of the stapes would produce no effect on the membranous structures," he counters that he has demonstrated experimentally that in the absence or occlusion of the round window a given inward excursion of the footplate of the stapes exerts a greater pressure wave both in perilymph and endolymph than when the round window and its membrane are intact. The perilymph has an outlet through the aqueduct of the cochlea and the endolymph through the *ductus endolymphaticus*. To Schafer's statement that "in the absence of the round window the fluid would be practically incompressible," he states that the fluid is incompressible in any case. Schafer's remark that "in the absence of the round window the base of the stapes would be immovable" is answered by Sturm to the effect that in the absence of the round window the base of the stapes is as freely movable as in its presence, the mobility of the normal stapes depending upon the patency of the aqueducts of the cochlea and vestibule. Therefore Schafer's contention that "the inward movement of the base of the stapes is made possible by the presence of the round window" is also disproved. Sturm claims that further teaching in "Physiology" that "the inward movement of the base of the stapes is always accompanied by an outward movement of the membrane covering the round window" has been shown to be inaccurate by his experimental finding that the pressure effect of a moderate excursion of the stapes exhausts itself in forcing the perilymph through the aqueduct of the cochlea and never reaches the round window.

Treatment of Atrophic Rhinitis.

DISPLACEMENT inwards of the antro-nasal walls is the method suggested by W. S. Syme for diminishing the spaciousness of the nose in atrophic rhinitis (*Journal of Laryngology and Otology*, September, 1924). The antrum is opened through the canine fossa and the opening enlarged forward so as to obliterate the anterior angle. The antro-nasal wall is then divided with a chisel along its inferior margin and by vertical cuts at each end of the longitudinal cut. A periosteum elevator then can be introduced through the breach in the bone to separate the mucosa from the nasal floor and so allow the antro-nasal walls to be forced inwards so that the inferior turbinals touch the septum. They are then secured there by packing through the antra. The packing is removed after three days and renewed every two days for a fortnight. The patients use a "Formalin" spray twice a day. He claims to have got satisfactory results. He has operated on twenty-three patients during the last fifteen months.

Tonsil-Adenoidectomy.

JAMES KERR LOVE (*Journal of Laryngology and Otology*, September, 1924) suggests a technique whereby the loss of blood in tonsil-adenoidectomy as ordinarily performed, may be controlled. Chloroform is the ideal anæsthetic, but ethyl-chloride and chloroform may be used. The left tonsil is enucleated and the forefinger of the assistant is immediately placed in the tonsil pocket. The right tonsil is then removed and the forefinger of the operator is introduced into the corresponding tonsil bed. The headpiece of the table is now depressed so that the larynx is kept quite dry. Pressure is kept up with the fingers for three minutes. After removal of the adenoids a pad of sterilized gauze is introduced into the naso-pharynx between the blades of a Loewenberg forceps and pressed against the roof of the naso-pharynx for two minutes.

Laryngeal Tuberculosis.

A. J. CEMACH (*Wiener Medizinische Wochenschrift*, February 14, 1925) uses a water cooled Kromeyer lamp applied for ten minutes two or three times weekly in the treatment of laryngeal tuberculosis. He has had forty-four patients of whom eleven died during treatment and seven had to abandon it for various reasons. Of the remaining twenty-six patients nineteen were clinically cured and two considerably improved. Those patients who have since died, did so from lung complications and not laryngeal. Therefore the treatment of the condition requires the close cooperation of physician and laryngologist.

Naso-Pharyngeal Growths.

W. MILLIGAN (*Journal of Laryngology and Otology*, October, 1924) states that the naso-pharyngeal fibromata are of fibro-cartilaginous origin. They are rare, usually occurring in males in the earlier years of life. In size, rapidity of growth and tendency to destroy surrounding tissues they vary greatly. They tend to adhere to adjacent structures and are excessively vascular. They have no definite capsule. Preliminary irradiation of the growth materially lessens the risks of severe hæmorrhage during any attempt at subsequent removal and causes a definite shrinkage in its actual size. He advises a long chisel or *rongeur* to detach the growth and a strong forceps to pull it away. A lateral rhinotomy facilitates access to the growth. He is opposed to splitting the palate. Diathermy may be employed before or after the emanation-spicule treatment or independently of it. Angiomata are rare, they do not tend to invade adjacent cavities, attempts at surgical removal are hazardous. Radium treatment is advocated. Sarcomata have been mistaken for adenoids or infected fibromata. They tend to invade adjacent sinuses. They do not tend to ulcerate and glandular involvement is a late phenomenon. Frequent attacks of hæmorrhage, progressive wasting and later glandular involvement and severe blood changes may occur. Operative removal is generally futile. Radium has a remarkable but evanescent effect. Milligan considers radium treatment in sufficiently strong doses offers the best prospects of success. Blood changes should be combated with injections of some arsenical preparation. Endotheliomata are comparatively benign and respond well to radium and diathermy. Carcinomata produce three important symptoms: recurring spontaneous hæmorrhage, recurring attacks of unilateral sero-mucous catarrh of the middle ear and persistent otalgia without objective signs of inflammatory reaction. Surgery in these cases has a more limited sphere of usefulness than either radium or diathermy treatment.

Prevention of Deafness.

J. KERR LOVE (*Journal of Laryngology and Otology*, February, 1925) urges the need for the better staffing by otologists of hospitals for infectious disease, poor law hospitals and institutions for the deaf. He also holds that otologists should supply the public with some guide as to the use of aids to hearing and that they should provide some guide with regard to the prevention of hereditary and congenital deafness. He emphasizes the statement that hereditary deafness is not and never has been syphilitic and affirms that the view regarding the widespread effect of syphilis as a cause of congenital deafness and of other so-called dystrophies, must be accepted with great caution.

Tonsillar Hypertrophy.

E. NOBEL AND A. F. HECHT (*Klinische Wochenschrift*, May 28, 1925) discuss the results obtained after tonsillectomy at von Pirquet's clinic. Hypertrophy was most common between the ages of four and ten. Spontaneous diminution in size after puberty can be expected in many instances. The relationship between disease of the tonsils and such other complaints as rheumatism, endocarditis and nephritis can often be noted. The examination of the tonsils alone, however, is not sufficient, the clinical history and course of the disease must also be observed. Tonsillectomy after the fifth year will cause a rapid amelioration of symptoms in the majority of instances. Under this age the percentage of successful results is much lower.

British Medical Association News.

MEDICO-POLITICAL.

A MEETING OF THE NEW SOUTH WALES BRANCH OF THE BRITISH MEDICAL ASSOCIATION was held at the B.M.A. Building, 30-34, Elizabeth Street, Sydney, on July 2, 1925, DR. R. B. WADE, the President, in the chair.

Notification of Venereal Disease.

DR. E. H. MOLESWORTH moved:

> That in view of the difficulty of securing anything like universal notification of cases of venereal disease and of the disadvantageous operation of the act in some directions, it is in the opinion of this meeting desirable to obtain either strict universal notification or a repeal of the measure known as the *Venereal Diseases Act*, 1918.

Before starting the discussion, Dr. Molesworth stated that he wished it to be understood that any reflections he might make were not personal. He referred to the history of the act. It had come into force on December 1, 1920, a considerable time after its actual passage through Parliament. During the debate on the bill, Dr. Richard Arthur had opposed that portion which specifically named the Director-General of Public Health as the Commissioner of Venereal Diseases. Dr. Arthur had accepted the modification which did not exclude the Director-General. The reason for this effort was not in any way due to an objection to the Director-General; it was due simply to the widely known opinion among the medical supporters of the bill that the work of the Commissioner under the act should not be a side line in the work of an official whose time and interest were already more than fully occupied. After the measure became law, the Director-General of Public Health had been duly appointed Commissioner under the act. Dr. Molesworth regarded this as very unfortunate, because the then Director-General was known to be sceptical of any benefit in the working of the act. The misfortune lay not in his lack of personal ability, but in the luke warmness of his administration. The succeeding Director-General of Public Health had also been made Commissioner under the act and the same policy had been followed.

In February, 1922, a conference was called by the Federal authorities to discuss the problem in connexion with the control of venereal diseases. Dr. Molesworth had been invited to attend this conference as a delegate from New South Wales and Dr. W. G. Armstrong had been another delegate. Some time before the conference there had appeared in the public press an article or announcement which many of those present would remember. This article or announcement conveyed to him and to many other practitioners the impression that the act was officially in abeyance and that it was no longer necessary to notify.

At the conference without realizing that he was raising the whirlwind, he had stated that the New South Wales *Venereal Diseases Act* was in abeyance. He had been greatly surprised when Dr. Armstrong had flatly contradicted the statement and had denied that any public intimation had been given to this effect. It had appeared to Dr. Molesworth that this was perhaps good political tactics since the Commonwealth subsidy might have been jeopardized by his statement. It was, however, barely "playing the game" at a medical conference. He had been unable during the available time to locate the article in question in the files of the Sydney newspapers. He and others had known that if a Gazette notice had not been published, definite information had been given to medical practitioners that they need not notify cases of venereal disease. In a leading article in THE MEDICAL JOURNAL OF AUSTRALIA of February 18, 1922, the New South Wales act was described as a "dead letter." The Federal Committee had taken the matter up and Dr. J. H. L. Cumpston had advised the Committee to seek "the voluntary cooperation rather than compulsion of medical practitioners in connexion with the notification of venereal disease" (THE MEDICAL JOURNAL OF AUSTRALIA, March 4, 1922).

Things had drifted since that time. Finding that many of his colleagues no longer bothered or had never bothered to report cases and that the administration was of the slackest, he gave up reporting his own cases. He expected that some official comment would reach him, that he would be asked why no further notifications were being sent, but nothing happened. It was not until the time when he had been giving evidence before the Royal Commission on Health that he was asked whether he reported his cases. When he replied in the negative, it had been pointed out to him that he was liable to prosecution, but he had felt able to smile.

The reversal of his attitude from one of strong support of notification of venereal diseases to one of disregard for the New South Wales act, had been brought about by the conviction that the administration by the Commissioner was not of a kind that would make the act useful and by the knowledge that the vast majority of gynæcologists who dealt with patients suffering from gonorrhœa, and of physicians who were called upon to treat visceral syphilis, as well as many general practitioners reported few, if any, of their cases.

Had the administration been in earnest, they would have wanted to know why he and many others had ceased to notify and why gynæcologists rarely notified. They would have exerted pressure and compelled them to notify and would have taken more definite steps to detect treatment by persons other than qualified medical practitioners and to punish the offenders. He challenged the authorities to show that the penal clauses had ever been put into force, that any chemist had been proceeded against for treating persons with venereal diseases, though he understood that this practice was still going on, or that any practitioner had ever been punished for failure to notify. If the authorities were in earnest not only to make him notify (it would be easy if he were convinced of their earnestness) but to force gynæcologists, physicians and general practitioners to notify, he would return wholeheartedly to his support of the act. At present it appeared to him to be a farce and not worth supporting. If the act were strictly enforced, he was convinced that nothing but good would result. It seeemed to him, however, that it would be more honest to obtain a repeal of the act than to continue to break the law even if this could be done with impunity. The administration was too lax for the act to be of use either for prophylactic reasons or for enforcing treaetment or for statistical purposes. The partial figures obtained were of little or no use and in some directions might be misleading.

As he supported strict administration of the act, he urged that the Branch as a body should insist that the Commissioner be not the Director-General of Public Health nor any other official of the Public Service who could not regard the work as anything more than a side line and who could not be expected to administer the act as it should be administered. If this were not possible, he suggested that they should demand the repeal of the measure and urge that the money spent in administration should be applied to treatment.

There were two other things he would wish to mention; both of these might be incorporated in the act to make it more effective. The first was the necessity of the routine application of the complement deviation test of the blood of pregnant women just as there was routine examination of the urine of pregnant women. The second was the routine application of the complement deviation test of the umbilical blood of all new-born infants just as there was routine lavage of the conjunctivæ. In regard to the first point, the work of Fowler and Hamilton Fairley in Melbourne (see THE MEDICAL JOURNAL OF AUSTRALIA, August 20, 1921 and December 24, 1921) dealing with the testing of the blood of pregnant women at the Women's Hospital, Melbourne, revealed that approximately 10% of pregnant women applying to a public institution for care during their pregnancy and confinement were syphilitic. He understood that a short series of investigations had

been carried out in Sydney with the same result, but for some inexplicable reason the matter had been dropped. He therefore proposed his motion.

Dr. J. Cooper Booth seconded the motion. For some years he had opposed the method of administration of the act in New South Wales and had published letters on the subject in The Medical Journal of Australia. He claimed that the figures issued were unreliable. Dr. Molesworth was justified in stating that many practitioners did not notify their cases of venereal diseases and that treatment by chemists was quite common. Patients were frightened that their names and addresses would be given with the notification.

He remembered the newspaper paragraph to which Dr. Molesworth referred. The act was being broken in a most flagrant manner in another direction. In some of the daily papers remedies for venereal diseases half cloaked by the employment of fancy names were advertised. Everybody knew what these were meant for. Patients could purchase sandalwood oil at almost any chemist. The patients claimed that they did not know the provisions of the act. Moreover, he had found that the objective of the act was being defeated by the frequent practice of patients giving false names and addresses. Every medical practitioner had evidence of this in connexion with his bad debts. He notified all his patients, but did not notify all the defaulters. He claimed that if the act could be enforced, it would be very useful, but as it was, it was useless. The medical practitioner administering the act should not be holding another whole time departmental office, but should devote the whole of his time to this purpose.

Dr. C. J. Wiley said that there was no doubt that there were difficulties in the administration of the *Venereal Diseases Act*. The objects of the act were dual. In the first place it kept the authorities informed of the amount of venereal disease and in the second place it enabled the authorities to take the necessary steps to have every infection treated and to prevent the spread of the disease. The statistics at present available were not of much use. Notification to be of value must be supplemented by efficient treatment and by detention of the sufferers during the infectious period. He realized that this was difficult. All measures that threatened publicity, must result in concealment. It was necessary to guarantee efficient treatment and he maintained that the general practitioner was not equipped in such a manner that he could carry out the best form of treatment. The medical profession had not yet adopted a definite standard of cure nor one of noninfectivity. He thought the profession should set its own house in order before approaching the authorities. The Branch should induce the medical practitioner to notify all cases. They might urge the authorities to enforce the clauses prohibiting treatment by unqualified persons. Their main objective should be to obtain the institution of facilities for improved treatment.

Dr. J. S. Purdy said that the control of venereal disease in Denmark was more successful than in any other country. In 1910 the incidence had been 8.4 per 10,000. In 1922 it had been 4.6 per 10,000. The ratio of syphilis to gonorrhœa in Denmark was 1 : 6, while in England it was 1 : 3. The Danish method was based on a system of voluntary cooperation of the medical profession rather than the legal system of compulsory notification and treatment. Dr. Purdy quoted various authorities in support of his contention that statistics by means of compulsory notification were unreliable. Moreover it was useless to carry out notification by number. He regarded it as a violation of professional confidence to notify by name. There was grave objection to the compulsory method of examination of persons suspected of venereal disease. It had been found in Amsterdam that 95% of the syphilitic men and 85% of the women had remained under treatment at the voluntary clinics for two years since the introduction of the system of collaboration of doctors, nurses and social workers.

Dr. Molesworth had advocated that the commissioner should not be the Director-General of Public Health and had instanced the good results that had been obtained in Western Australia. As a matter of fact Dr. Everitt Atkinson who administered the Western Australian *Venereal Diseases Act* was Commissioner of Public Health as well. He was very doubtful whether the *Venereal Diseases Act* could be a success. There were no facilities for effective treatment and there was a large number of charlatans, impostors and malingerers of the truth offering treatment. He thought that it would be possible more effectively to control the diseases if they had sufficient centres where people could be properly treated and where prophylaxis could be taught, but he opposed gratuitous treatment. The public should be educated to the necessity of treatment and there should be more cooperation on the part of the practising profession with the authorities in regard to the notification and treatment of venereal diseases.

He referred to a committee which had been appointed in the Branch a few years before to deal with this matter and suggested that the whole question should be reconsidered by this committee. He disapproved of the suggestion that the act should be repealed. He called attention to the fact that only a section of those infected with tuberculosis was notified. It was unlikely that they could obtain notification of a larger proportion of persons infected with diseases like venereal diseases. Even for statistical purposes it was obvious that mere notification was not reliable.

Dr. Richard Arthur, M.L.A., wished to call attention to some slight inaccuracies in Dr. Molesworth's remarks concerning the passage of the *Venereal Diseases Bill*. It was understood that the Commissioner should be an officer who should devote his whole time to the administration of the act. The bill had been drafted by a society for the prevention of venereal diseases organized in the University of Sydney. Mr. Fitzgerald had conceived the idea that the Director-General of Public Health should be commissioner under the act. Dr. Arthur had moved the amendment that the commissioner should be distinct from the Director-General. The amendment had been carried. He had wanted the appointment of a young man with expert training and with *carte blanche* to expend as much money as was needed. It had been suggested that between £25,000 and £30,000 should be spent in buildings at the Royal Prince Alfred Hospital and £15,000 at the Sydney Hospital. What had been done, especially at the Sydney Hospital, had been quite inadequate. He had suggested that the clinic at the Sydney Hospital should be closed as a protest. Various proposals had been made for the opening of other clinics, but nothing had been done. He had again and again opposed the putting into force of the act for obvious reasons the figures at the Royal Prince Alfred Hospital until they had been compelled to limit the number of patients. Mr. McGirr had brought the act into force under pressure from women's organizations. If he, the speaker, had his own way, he would not have the act enforced until all the necessary machinery could be provided. The first essential was the appointment of a commissioner to administer the act and to bring pressure to bear on the authorities to establish clinics. Until this was done, it was of small importance whether or not notification could be carried out. He asked whether there had been any prosecutions of unqualified persons for treating patients for venereal disease. As far as he was aware there had been none. According to the *Bulletin* there had been a few prosecutions for failure to continue under treatment in other States, but none in New South Wales. He would like to see a government that was alive to the seriousness of the problem. The end results of syphilis constituted a tremendous charge on the community and this was an ever increasing expenditure. It involved the upkeep of many general hospitals and hospitals for the insane. He advocated the setting aside of a certain sum of money for building clinics and for starting them and the institution of an educational campaign. He believed in the value of lectures on the appalling effects of venereal diseases. The only place where such lectures were sanctioned by the New South Wales Branch of the British Medical Association was the place in which they were least needed, namely, the Young Men's Christian

Association. He did not approve of the repeal of the act, but asked for money and an educational campaign.

Dr. Harvey Sutton, O.B.E., expressed the opinion that the act had partially justified its existence. He pointed out that when he was a student, syphilis had not been regarded as a very wide spread disease. The profession had since then appreciated that syphilis was a very important disease. Nature did not proceed abruptly and it was inconsistent to expect that within five years the medical profession would come into line with this entirely new phase of practice. He thought, however, that there was a remarkable absence of sincerity in regard to the seriousness of syphilis. The latest statistical data calculated on the basis laid down by pathologists and adopted by the Commonwealth Committee of 1915, revealed that in one year there had been 1,770 deaths due directly or indirectly to syphilis. Heart disease was the only other disease which was more fatal to the community. It had been shown that general paralysis of the insane occurred in 3% to 4% of all syphilitics. There were approximately two thousand persons in the Commonwealth suffering from general paralysis of the insane, which would mean about sixty thousand syphilitics. Dr. Sutton held that they were not making a serious attempt to face the position. The medical profession was at fault. He claimed that no hospital was justified in refusing admission or treatment to a syphilitic patient whether in the active stage or not. He maintained that a government could not compel any profession to notify a disease and that the medical profession would never notify any disease if it did not want to. It was very important that practitioners should get hold of patients in the infective stages of these diseases and the act favoured this. Though defaulting was serious, it should be remembered that treatment with "Salvarsan" in the first and second stages of syphilis rendered the patients non-infective.

Dr. Ernest Jones had dealt with the incidence of general paralysis of the insane in an excellent contribution to the Australasian Medical Congress (British Medical Association) in 1923. He had shown that the peak of the admissions for this disease had been reached in 1917. This disease was very useful for this kind of study because the majority of those suffering suffering from it found their way into the mental hospitals. The figures seemed to reveal a tendency to drop in recent years. Perhaps the explanation of this was the more effective treatment coming into action about 1900.

Dr. Sutton stated that no act of parliament was likely to be useful unless the medical profession was prepared to make it so. The medical profession had not led the way. He contended that compulsion was only useful for persons who were incorrigible. It was of no value for a whole profession. He anticipated that it would take years before the wave of enthusiasm concerning the control of venereal disease would become general.

Dr. N. M. Gibson agreed with Dr. Harvey Sutton. He thought that the reason why the general practitioner had not notified venereal disease was that he wished to make himself popular. He, the speaker, had never known a patient to object to notification after it had been explained to him that the notification was only by number. He deplored the fact that the compulsory treatment clause had not been enforced. He thought that it would be possible to insist on this in the future. In no part of the British Empire except the London Lock Hospital was efficient treatment of venereal disease carried out in general hospitals. In the Australian hospitals there were far too many patients and too few beds. When the patient's condition was becoming interesting, he was usually transferred to the Coast Hospital or other governmental institution and the medical officer lost trace of him. Venereal disease was largely treated by pharmacists and other unqualified persons.

Notification of defaulters was both difficult and dangerous. Dr. Gibson admitted that he did not always notify defaulters. He held that the question was not what action had the Commissioner taken, but what help had the medical profession given to him.

Dr. Robert Dick said that he did not feel very comfortable. He was extremely upset to hear what a man of the standing of Dr. Molesworth had said. He thought that it was a very bad thing that one of the leaders of the medical profession should assume the attitude of defiance to an act of Parliament. Dr. Dick referred to the difficulties in the administration of the act. Dr. Arthur had said that he was not aware that any prosecutions had been undertaken. In the course of the past twelve months the Department had prosecuted on a few occasions and there were one or two cases pending. Eight pharmacists had been prosecuted for treating persons with venereal disease and one unqualified person who had a most elaborate outfit. The fines for these offences had been ten pounds. A person had been fined one pound for failing to continue treatment, while another had been sentenced to three months' imprisonment with light labour for failure to place himself under treatment. A pharmacist was not liable unless he actually treated the person suffering from the disease. There were very many ways in which this part of the act could be evaded. It was very difficult to deal with defaulters. There had been about 1,350 in 1924. Of these four hundred had been induced to resume treatment. Six hundred and fifty had given false names and addresses and consequently no steps could be taken to bring them into line.

In regard to the incidence of the disease among women and children, Dr. Dick had been attempting to obtain information from the large women's hospitals. He had not been able to get the staff to take the matter up. They had informed him that if he cared to send someone up to test the blood of the patients, no objection would be raised. They themselves had no time for this work. It would thus appear that the failure was not entirely on the side of the Department. He was not prepared to express an opinion concerning the value of notification. He thought that the profession would be well advised if it induced the government to provide him with more money and better facilities for the administration of the act. The clinic of the Department had been a great success and the numbers of the patients attending had increased steadily. The number of attendances stood at about one hundred and twenty. The clinic was opened at a quarter to six o'clock in the evening and treatment was started at seven. When the patients arrived, they were given a numbered card and were advised concerning the approximate time to return. In this way overcrowding was prevented. Many persons would not wait for two hours for treatment that occupied two or three seconds.

The State Government voted £10,000 each year for the administration of the *Venereal Diseases Act*. This money was distributed to the various hospitals. Many of these institutions received very little. Those practitioners who obeyed the law, received payment for their notification, but those who did not notify, lost this money. Dr. E. S. Morris paid a great deal of attention to the work. He thought that it was essential that there should be more clinics. It was proposed to establish a venereal diseases clinic at the new women's hospital at Redfern. The medical profession was doing very little for the women. He hoped that the Government would support the movement that was in charge of women practitioners. In the past nine men were being treated to every woman. It was unreasonable to suppose that the infections were not equal in both sexes.

In conclusion Dr. Dick expressed the opinion if Dr. Molesworth's views went forward as the views of the profession, it would do a great deal of harm.

Dr. Peter Murphy said that he was glad that Dr. Molesworth had raised the question of the attitude of gynæcologists toward the problem of the prevention of venereal diseases. He held that this was a very important matter. A very large number of Fallopian tubes were removed on account of gonorrhœal infection, but no attention was given by gynæcologists to the source of the infection. He was of the opinion that the incidence of gonorrhœa was greater in women than in men. The treatment of gonorrhœa in women had not advanced beyond a stage comparable with the treatment of males with copaiba. There was no doubt of the importance of this subject. A very large proportion of women in lying-in hospitals was suffering from venereal diseases, yet nothing was

done for them. Much could be effected by propaganda and by the education of prostitutes and others regarding prophylaxis. He claimed that a mental kink could not be cured by an act of Parliament. The *Venereal Diseases Acts* had for their object a reduction of infection. He regarded it as a grave reflection on the profession that it was necessary to legislate for this purpose. The profession generally held the view that gonorrhœa in women was incurable. Dr. Murphy claimed that this was wrong, but even if it were true, there was no doubt that the sufferers could be rendered non-infective. The speaker claimed that medical students should be educated how to recognize gonorrhœa in women and should be taught how to treat it.

Dr. Mary Booth said that she was indebted to Dr. Molesworth. She pointed out that if notification were carried out, the Government would be embarrassed by the inadequacy of the accommodation. Unfortunately the public was not aware of this inadequacy of accommodation. Dr. Booth stated that no member of the Association in practice was allowed to deliver a public lecture. She held that this was very disadvantageous. No government would provide money for the combating of a disease until the medical profession came forward and demanded it.

Dr. T. W. Lipscomb corrected Dr. Booth in regard to the rule of the New South Wales Branch concerning the delivery of public lectures by the members in active practice. He pointed out that Dr. Fourness Barrington, Dr. George Armstrong and he himself had taken active steps in approaching previous governments with the object of inducing them to introduce legislation on the lines of the *Midwives Act* of Great Britain. A very great deal of spade work had been done by the medical profession in ventilating the question of the maternal morbidity and mortality and the need for action.

Dr. P. Fiaschi expressed himself in favour of the abolition of compulsory notification of venereal disease. He thought that the medical profession should put its own house in order. He pointed out that at the Auckland Congress the subject of the combating of venereal disease had been brought up. It had been pointed out at that time that not a single university in Australia had a chair of venereal disease. Although several years had elapsed, no such chair had yet been founded. In Europe and America almost every university and college had a chair of venereal disease. Dr. Fiaschi insisted that the two most important subjects to teach medical students were obstetrics and venereal disease. They had a chair of obstetrics in the University of Sydney, which was a step in the right direction. The student knew more about gastro-jejunostomy or operations on the *sella turcica* than he did about venereal diseases. He claimed that it was necessary to introduce education first and prevention second. Young men were turned out of their homes at the age of seventeen with no knowledge at all of social dangers. He held that they should be taught about the three diseases, their prevention, their treatment and the dangers. In regard to girls he stated that they were not frightened of venereal disease; they were merely frightened of becoming pregnant. Dr. Fiaschi maintained that it was less dishonourable to become pregnant than to be infected with venereal disease. He maintained that girls should be taught in the same way as boys should be taught. The question arose as to who should give this information. Doctors wished to pass it on to the fathers and the fathers tried to pass it on to the parish priest. He regarded the giving of early information as of the utmost importance.

In regard to prevention Dr. Fiaschi stated that he had had a leaflet printed for the information of all his patients. It was his practice to give a demonstration in prophylaxis to each patient. He had had only one failure. This was in an optimist of the first water Medical practitioners usually treated their patients without giving them any information concerning the avoidance of subsequent infection. His own experience had taught him that venereal diseases were commonest among the artisan classes of New South Wales. In New York these diseases were as frequent among the wealthy. In conclusion he asked Dr. Dick whether the information concerning any of the chemists who had been reported for treating patients with venereal disease, had emanated from private practitioners.

Dr. R. Dick stated that the information in the majority of instances had been obtained at clinics.

Dr. J. S. Purdy moved an amendment in the following terms:

> That this Branch of the British Medical Association in view of the difficulty of securing anything like universal notification of cases of venereal disease with adequate supervision and treatment, asks the Council to endeavour to secure the cooperation of the profession in assisting the Commissioner in measures to provide adequate treatment both for men and women and asks the Government to provide adequate hospital treatment and clinics both for men and women, as well as an educational propaganda with regard to the effects of these diseases and the means of prevention.

The amendment was seconded by Dr. N. M. Gibson.

Dr. R. B. Wade read a letter on the subject under discussion by Dr. R. A. Noble.

Dr. E. H. Molesworth in his reply stated that he was willing to withdraw his motion in favour of Dr. Purdy's amendment. Dr. Arthur had contended that the most urgent need was the provision of money. He, the speaker, pointed out that some of the money voted by Parliament was spent on the administration of the act. Some speakers had insisted that the medical profession should put their own house in order. He agreed that this was very necessary. The attempt to put the house in order had lead to the introduction of the *Venereal Diseases Act*. In this way the matter had been brought to the notice of the community. He claimed that hospital figures would yield as much information as compulsory notification and that statistics based on hospital figures would be more reliable. He could not accept the suggestion that the decrease in the incidence of general paralysis of the insane had been due to the effect of the new legislation. He claimed that it was the result of the more efficient treatment of syphilis since the introduction of arseno-benzol drugs. He still maintained that if notification could be strictly enforced, good would result.

In reply to Dr. Dick he stated that he did not feel conscience stricken. He held the opinion that if a practitioner were convinced that the administration of the act was a farce, he would be a fool to continue to notify. He assured Dr. Dick that as soon as he was convinced that the administration was in earnest, he would be the easiest person in the Commonwealth to persuade. He was not alone in his opinion. He expressed the opinion that Dr. Murphy was one of very few male gynæcologists who took an intelligent interest in the problem of gonorrhœa in women.

Dr. Molesworth's motion having been withdrawn, Dr. Purdy's amendment became the substantive motion. It was put to the meeting and was carried.

NOMINATIONS AND ELECTIONS.

The undermentioned have been nominated for election as members of the New South Wales Branch of the British Medical Association:

Kristenson, Ronald Justice Carlisle, M.B., Ch.M., 1924 (Univ. Sydney), 9, Constitution Road, Dulwich Hill.

Stephen, Bruce Alexander, M.B., Ch.M., 1923 (Univ. Sydney), Cronulla.

The undermentioned have been elected members of the Victorian Branch of the British Medical Association:

Cockerill, John Edward, M.B., B.S., 1924 (Univ. Melbourne), Studley Road, Kew.

Gault, Henry Woodall, M.B., B.S., 1923 (Univ. Melbourne), Tooronga Road, Hawthorn.

Gorman, John Sextus, M.B., B.S., 1925 (Univ. Melbourne), Kyneton Hospital, Kyneton.

Obituary.

ROY CHARLES MERRYWEATHER.

On Tuesday, July 14, 1925, Roy Charles Merryweather was at work, apparently a healthy man. He attended a meeting of the Council of the Guildford Grammar School in the afternoon and was in high spirits on his arrival at his home. Ten minutes later his wife found him dead in his chair. Despite his apparent good health he had experienced several attacks during the previous few weeks. From the descriptions given to some of his intimate friends these attacks were typical of *angina pectoris*. His sudden death has caused widespread regret among his colleagues in Perth and in other parts of the Commonwealth and among the people of Perth.

He was born in the old country in 1881. His medical studies were completed at University College Hospital in London, where he achieved many distinctions and gave promise of more. He was popular as a student and attracted the attention of his teachers from the earlier stages of his career. He gained the Fellowes's Medal in Clinical Medicine. He passed the examination of the conjoint Colleges in 1903. Soon after qualifying he was appointed House Physician at the Brompton Hospital for Consumption and Diseases of the Chest. At the termination of his year he secured the position of Clinical Assistant to Out-Patients at the Brompton Hospital and later he obtained that of House Physician at University College Hospital. From his old hospital he was appointed Assistant Medical Superintendent to the Brompton Hospital Sanatorium at Frimley in Surrey. He gained valuable experience of diseases of the chest both at the hospital in Fulham Road and at the Frimley Sanatorium. At that time Robert Maguire, Herbert Habershon, F. J. Wethered and Horton-Smith Hartley were doing excellent work and it was under their influence that Roy Charles Merryweather laid the sound foundations of his reputation as a learned and skilled physician.

In 1908 he left England for Australia and settled in Perth where he entered into partnership with Dr. William Trethowan. After twelve months Dr. Trethowan retained the surgical side of the practice, while Roy Charles Merryweather took over the medical work. The soundness of his judgement, the wideness of his knowledge and the keenness of his intellect contributed equally toward his success in a very large practice.

Early in his Australian career he was appointed Honorary Physician to Out-Patients at the Perth Public Hospital. Later he became Honorary Physician at the Children's Hospital and Honorary Physician to In-Patients at the Perth Hospital. At the time of his death he was the senior Honorary Physician. His work in the hospital and his unlimited interest in the welfare of the institution secured for him a seat on the Board of Management several years ago.

Roy Charles Merryweather took a very active part in the work of the Western Australian Branch of the British Medical Association. He joined the Branch early, became a member of the Council in 1913 and retained his seat until 1921. In 1915 he was elected Vice-President and in 1916 he occupied the chair as President. During these years he acted as the leading spirit in the State Medical Committee whose functions were concerned with vocational training of disabled soldiers and the orthopædic treatment of the maimed. He was a member of the Ethical Committee of the Branch for a period of six years. When the Australasian Medical Publishing Company, Limited, was formed in 1913, the Western Australian Branch appointed as the three representative members the Honourable A. J. H. Saw, Dr. William Trethowan and Roy Charles Merryweather. His association with this journal has thus been a very intimate one. In 1920 he visited England and acted as a delegate of his Branch at the Annual Meeting at Cambridge.

Among his other professional offices that of member of the Medical Board and of the Midwives' Board may be mentioned. He was also associated with the Dental Board.

Despite his busy practice he found time to display his deep interest in the affairs of his church. He was a member of the Council of the Church of England Schools and one of the Trustees of the Padbury Bequest in connexion with the Old Men's and Old Women's Homes.

Roy Charles Merryweather was not only a skilled physician; he was a man of deep sympathy, a charming companion. Those who knew him intimately, have lost a true friend; the community has lost a staunch champion of justice and progress; his patients have lost a wise adviser and a strong helper. His widow has lost an ideal husband and his three children have lost an ideal father. We who stand outside, offer his dear ones our sincerest sympathy and mourn because of our own loss.

University Intelligence.

THE UNIVERSITY OF SYDNEY.

A meeting of the Senate of the University of Sydney was held on August 10, 1925.

The degree of Master of Surgery (Ch.M.) was conferred *in absentia* upon Mr. R. W. H. Maffey.

A letter was received from the General Manager of the Orient Steam Navigation Company advising the Senate that it had been decided to grant four annual free steamer passages to Europe for Sydney students instead of three as heretofore.

A communication from the Secretary of the Royal Commissioners of the Exhibition of 1851 notified the University of the appointment of Mr. V. M. Trikojus, B.Sc., to a Science Research Scholarship.

On the report of the Advisory Committee (Saint Vincent's Hospital) the following were recommended for appointment to the position indicated:

Lecturer in Clinical Medicine: Dr. O. O. A. Diethelm.
Honorary Physician to In-Patients: Dr. G. R. P. Hall.
Honorary Physicians to Out-Patients: Dr. J. E. Sherwood and Dr. D. A. Cahalan.

Arrangements were made for the reception of members of the Imperial Press Conference at the University on September 3.

On the recommendation of the Professorial Board a communication from the League of Nations regarding the foundation of an international university and inter-university relations in general, was remitted to the next conference of the Australian Universities.

The Senate decided, on the recommendation of the Professorial Board, to ask Professor J. T. Wilson (Cambridge) and Professor J. Read (Saint Andrew's) to act as representatives of this University at the Universities Congress to be held in 1926. The question of the appointment of other delegates was left in the hands of the Vice-Chancellor.

Medical Societies.

THE MEDICAL SCIENCES CLUB OF SOUTH AUSTRALIA.

A MEETING OF THE MEDICAL SCIENCES CLUB OF SOUTH AUSTRALIA was held at the Adelaide University on June 5, 1925.

The Action of Atropine.

DR. H. C. HOSKING had communicated to the Secretary by letter the results of experiments upon Australian aborigines and other persons in regard to the action of atropine upon the heart beat.

At the thirty-ninth meeting of the Club, held on December 5, 1924, Professor Cleland and Dr. Jose had reported that two out of three aboriginal patients receiving 0.0012 gramme (one-fiftieth of a grain) of atropine showed initial slowing of the heart beat amounting to ten or eleven beats per minute respectively, which was identical with the average slowing for white races reported by Paskind. Since negroes were reported by Paskind not to display this slowing, it had become a matter of considerable interest to extend these observations upon aborigines. The series reported by Dr. Hosking included two full-blooded Australian aborigines, one Australian half-caste, one full-blooded Afghan and one full white as a control. In order to avoid the psychological factor of excitement which often led to acceleration of the heart in individuals who had not previously received hypodermic injections, Dr. Hosking had administered to each individual a series of three injections, the first being 0.001 gramme (one-sixtieth of a grain) of atropine sulphate dissolved in 0.5 cubic centimetre of distilled water; the second a simple injection of 0.5 cubic centimetre of distilled water and the third exactly similar to the first. The injections had been administered on successive days. The results showed that in every instance the second injection of atropine caused a pronounced fall of pulse rate in from fifteen to thirty minutes after injection, while distilled water exerted little or no effect. In one full-blooded aboriginal the first injection of atropine sulphate had caused a very pronounced rise of pulse rate followed by a fall. This rise which was not seen in either of the two subsequent injections, had probably been psychological in origin. The least pronounced fall was that provided by the full white, whose pulse rate fell on receiving distilled water. Paskind had shown, however, that about 10% of white individuals do not display initial slowing of the heart beat after small doses of atropine. It appeared, therefore, that the Australian aboriginal in the five cases investigated resembled the white man rather than the negro in his reaction to atropine.

Musculature of the Pelvic Floor.

DR. A. R. SOUTHWOOD briefly discussed the evolution of the musculature of the pelvic floor. He described the work of Peter Thompson in 1900, tracing the evolution of the human *levator ani* muscle from the *ilio-coccygeus* of lower animals. With the assumption of the erect posture the muscles had undergone great changes. The *ilio-coccygeus* or posterior portion of the *levator ani* of man was aponeurotic rather than muscular; it had degenerated. The *pubo-coccygeus*, on the other hand, had become more highly developed and in man it consisted of two parts, the *pubo-coccygeus* proper and an inferiorly-placed muscle, the *pubo-rectalis*. This latter portion was in man particularly important, since it served to guard the aperture in the fore part of the pelvic floor through which the urogenital and rectal canals passed. Thompson regarded the *ilio-coccygeus* and *pubo-coccygeus* of lower animals primarily as tail movers. Professor Arthur Keith had shown later that flexion of the tail root assisted in occluding the pelvic outlet—the perineal shutter of Keith. Paramore in 1910 had traced the evolution of the pelvic floor down to the fishes and had shown that in all lower animals the muscles constituting it were primarily for the purpose of guarding the pelvic outlet and that the flexion of the tail in the lower mammals was due to the *sacro-coccygei* rather than to the *ilio-coccygei* and *pubo-coccygei*. The muscular pelvic floor was part of the mechanism for maintaining a positive intraabdominal pressure and from this viewpoint it underwent phylogenetic development to reach its highest function in man.

Cholesterol and Cell Multiplication.

PROFESSOR T. BRAILSFORD ROBERTSON pointed out that the administration of cholesterol to rats hypodermically or by mouth greatly accelerated the growth of inoculated carcinoma and increased the tendency to form metastases. The experiments of Robertson and Burnett showed that replacement of the hydroxyl group in cholesterol by chlorine, acetyl or hydrogen, resulted in loss of the of the power of cholesterol to accelerate growth of carcinomatous tissue. Cholesterol also accelerated the multiplication of protozoa (*Infusoria*) when added to the culture medium which they inhabited. He reported experiments which showed that oxidation of cholesterol with the introduction of a second hydroxyl group destroys the ability of the cholesterol to accelerate the multiplication of the *Infusoria*. It thus appeared that very slight modifications of the structure of cholesterol were sufficient to abolish its power of accelerating certain types of cell multiplication.

If alcoholic solutions of cholesterol were delivered slowly into hot distilled water with constant stirring, milky emulsions of cholesterol were procured. The alcohol might be removed from these by extraction with ether which did not remove the emulsified cholesterol, and the ether might then be removed by aeration of the hot emulsion. If the cholesterol employed in the preparation of the emulsion was perfectly pure, aeration did not affect it in any way, but if the emulsion contained traces of impurities derived from the original acetone extract of brain tissue, aeration of the hot emulsion resulted in oxidation of the cholesterol with the introduction of a second hydroxyl group and loss of power, as stated above, to accelerate the multiplication of protozoa.

It had recently been shown by Hess, Weinstock and Helman that although cholesterol was not normally capable of preventing the occurrence of rickets in rats deprived of antirhachitic factor, if the cholesterol was irradiated with ultraviolet light it acquired the property of protecting rats against rickets. The question suggested itself whether perfectly pure cholesterol would act in this manner after irradiation or whether the change which occurred in the cholesterol during irradiation, might possibly require the presence of the catalysor which also permitted oxidation

of emulsions of cholesterol by the simple process of aeration. The nature of this catalysor was at present under investigation.

Ascaris.

PROFESSOR HARVEY JOHNSTON exhibited slides showing various stages of mitosis in the eggs and sperm of *Ascaris*.

Correspondence.

PRIZE ESSAY ON MATERNAL AND INFANTILE MORTALITY AND MORBIDITY.

SIR: We are instructed to inform you that at the meeting of this Committee held on Friday last a report was received from the examiners concerning the essays for the prize of 150 guineas for the best essay on the prevention of maternal and infantile mortality and morbidity.

The examiners unanimously reported that the essay bearing the motto "*Salus populi suprema lex*" was entitled to the prize.

In the signed report of the examiners the opinion is expressed that the essays under the mottos: "The Old Order Changeth, Giving Place to New" and "Forewarned is Forearmed" shared the distinction of *proxime accessit*. They further expressed their opinion that the essay under the motto, "*Spero Meliora*" has earned a special mention by reason of the excellent method in which it attacked the problems from the side of obstetric work in rural districts.

The successful essayist is Dr. E. Sydney Morris, of the Public Health Department in Sydney, who has been informed of the appreciation of the Committee of the excellent work done and trouble taken in the writing of that essay.

We are, etc.,

W. DUNBAR HOOPER,
HAROLD R. DEW,

Joint Honorary Secretaries, The Melbourne Permanent Committee for Post-Graduate Work.

Melbourne,
August 17, 1925.

Books Received.

THEORY AND PRACTICE OF NURSING, by M. A. Gullan; Second Edition; 1925. London: H. K. Lewis & Company, Limited. Demy 8vo., pp. 250. Price: 9s. net.

THE DIABETIC LIFE: ITS CONTROL BY DIET AND INSULIN, by R. D. Lawrence, M.A., M.D.; 1925. London: J. and A. Churchill. Post 8vo., pp. 156, with illustrations. Price: 7s. 6d. net.

Medical Appointments.

Dr. K. C. Godfrey (B.M.A.) has been appointed Medical Officer of Health to the Local Board of Health of the District Council of Clare, South Australia.

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Dr. R. D. Bartram (B.M.A.) has been appointed District Health Officer of the Council of Mount Barker, South Australia.

Medical Appointments Vacant, etc.

For announcements of medical appointments vacant, assistants, *locum tenentes* sought, etc., see "Advertiser," page xvi..

ALFRED HOSPITAL, MELBOURNE: (1) Out-Patient Physician; (2) Two Clinical Assistants to Out-Patient Physician.

KYNUNA HOSPITAL, QUEENSLAND: Lady Doctor.

STATE PUBLIC SERVICE, WESTERN AUSTRALIA: Assistant Medical Officer, Hospital for Insane.

UNIVERSITY OF SYDNEY: Physicist to the Cancer Research Committee.

Medical Appointments: Important Notice.

MEDICAL practitioners are requested not to apply for any appointment referred to in the following table, without having first communicated with the Honorary Secretary of the Branch named in the first column, or with the Medical Secretary of the British Medical Association, 429, Strand, London, W.C..

BRANCH.	APPOINTMENTS.
NEW SOUTH WALES: Honorary Secretary, 30 - 34, Elizabeth Street, Sydney.	Australian Natives' Association. Ashfield and District Friendly Societies' Dispensary. Balmain United Friendly Societies' Dispensary. Friendly Society Lodges at Casino. Leichhardt and Petersham Dispensary. Manchester United Oddfellow's Medical Institute, Elizabeth Street, Sydney. Marrickville United Friendly Societies' Dispensary. North Sydney United Friendly Societies. People's Prudential Benefit Society. Phœnix Mutual Provident Society.
VICTORIAN: Honorary Secretary, Medical Society Hall, East Melbourne.	All Institutes or Medical Dispensaries. Australian Prudential Association Proprietary, Limited. Mutual National Provident Club. National Provident Association.
QUEENSLAND: Honorary Secretary, B.M.A. Building, Adelaide Street, Brisbane.	Brisbane United Friendly Society Institute. Stannary Hills Hospital.
SOUTH AUSTRALIAN: Honorary Secretary, 12, North Terrace, Adelaide.	Contract Practice Appointments at Renmark. Contract Practice Appointments in South Australia.
WESTERN AUSTRALIAN: Honorary Secretary, Saint George's Terrace, Perth.	All Contract Practice Appointments in Western Australia.
NEW ZEALAND (WELLINGTON DIVISION): Honorary Secretary, Wellington.	Friendly Society Lodges, Wellington, New Zealand.

Diary for the Month.

AUG. 31.—Victorian Branch, B.M.A.: Council.
SEP. 1.—Tasmanian Branch, B.M.A.: Council.
SEP. 2.—Victorian Branch, B.M.A.: Branch.
SEP. 2.—Section of Obstetrics and Gynæcology, New South Wales.
SEP. 4.—Queensland Branch, B.M.A.: Branch.
SEP. 8.—Tasmanian Branch, B.M.A.: Branch.
SEP. 8.—New South Wales Branch, B.M.A. :Ethics Committee.
SEP. 9.—New South Wales Branch, B.M.A.: Nomination of Candidates for Federal Committee.
SEP. 10.—Victorian Branch, B.M.A.: Council.
SEP. 10.—South Australian Branch, B.M.A.: Council.
SEP. 10.—New South Wales Branch, B.M.A.: Clinical Meeting.
SEP. 11.—Western Australian Branch, B.M.A.: Council.
SEP. 11.—Queensland Branch, B.M.A.: Council.
SEP. 11.—Central Southern Medical Association, New South Wales.
SEP. 15.—Tasmanian Branch, B.M.A.: Council.
SEP. 15.—New South Wales Branch, B.M.A.: Executive and Finance Committee.
SEP. 16.—Western Australian Branch, B.M.A.: Branch.
SEP. 16.—South Sydney Medical Association, New South Wales.

Editorial Notices.

MANUSCRIPTS forwarded to the office of this journal cannot under any circumstances be returned. Original articles forwarded for publication are understood to be offered to THE MEDICAL JOURNAL OF AUSTRALIA alone, unless the contrary be stated.

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